The American Journal of

CLINICAL MEDICINE

Dependable Therapeutic Agents for Daily Use

MARCH MCMXIX

The Food Problems

ATTENTION is called to Doctor Benedict's article on dietetic economics appearing in this number; also to the special article on how Uncle Sam takes care of his soldiers and sailors.

In the April number, among many other good things, there will be an instructive study on meningitis written by Doctor Goldstein.

We also intend to arrange and publish a symposium on influenza based on numerous letters received from readers of CLINICAL MEDICINE.

If your subscription has not yet been renewed, won't you attend to it promptly?

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New Aspects of Medical Efforts

THAT the methods and conditions of the work of medical men, are, at present, in a stage of transition, is nothing new. There is a general feeling of unrest, of dissatisfaction, a groping, more or less blindly, sometimes, though, deliberate and purposeful, for greater development toward the ideals of medical practice that justly are found in the prevention of disease, making unnecessary the curing of it, because of its nonoccurrence.

It has been suggested that medical men returning from service in the army and navy, either in the home country or abroad, will not be satisfied to go back to the old routine work, to grope along in the accustomed grooves. New outlooks have been obtained; new ideas have been formed, and new ideals have arisen. One field of splendid activity, suitable for medical men, that has been opened up in recent years and is but partly developed, is well touched upon by a correspondent to *The Journal of the American Medical Association*. In the December 21 issue of this publication, on page 2093, Dr. J. F. C. Luhan, acting assistant surgeon of the U. S. Public Health Service, has put the problem so well that we can do no better than to reproduce his letter in full, as follows:

"Now is the time for American small municipalities to rise and demand health protection and to pay for it. Thousands of able, educated, experienced young medical officers from the Army, Navy, and Public Health Service will soon be discharged or will leave by resignation. Give these young, able men a chance to work as paid health-officers in each community of, say, 5,000 inhabitants and above. Pay them living-salaries and make them independent from the start. Place them in groups under older officers as supervisors, and let the U. S. Public Health Service do the general supervision and direction of the work, so that uniform and advanced procedure may be maintained. Establish suitable, perhaps small but, still, well-equipped laboratories, for conducting bacteriologic and biologic work, in some centrally located larger city, and place an efficient officer in charge. Build hospitals!

"Have on hand an adequate staff of nurses, not only to supervise the school-hygiene, but, also, to visit and instruct

families in their homes and to detect overcrowding in the slums of the city. Make available self-sustaining, sanitary boarding-houses for single men and women; protect the children from the evil influences of star-boarders and the like. Segregate tuberculous subjects. Have a social-welfare committee regularly appointed and managed by Red-Cross staffs, these to teach to the foreign-born the American way of clean living and to see to it that pure air and, in winter, sufficient heat is supplied the needy, and that the children are properly clothed. Give the American public the benefit of the experience for which they had to pay so dearly. Americanize the foreigners, by paying more attention to their welfare."

God help the man who has no friends.

THE NEXT LIBERTY LOAN

If any of us think that, with the signing of the armistice, on November 11 last, we were through with the war and could now definitely turn to other pursuits, they decidedly have another "think" coming. True, the fighting-work of the soldiers and sailors that we sent abroad is accomplished. There is little for them left to do, although that little is tedious enough. However, when we sent our soldiers across the water, we undertook to maintain and support them. The debts that were incurred in connection with our participation in the war are, by no means, liquidated, and Uncle Sam, we are told, is getting ready to make another "touch."

There can be no question that it is for us stay-at-homes to pay those bills. Yet, the government, by no means, desires to make it a donation-party; all it wants is, to have the necessary funds advanced by way of loans for which promissory notes will be issued, just as they were during the first four Liberty-Loan Drives.

Whether the next bonds issued will be designated as Liberty Loan or Victory Loan or Victory-Liberty Loan, or as something else, is of small import. The essential point is, that the American people continue with a will to place the necessary funds at the disposal of the government, that it may liquidate the obligations assumed by its participation in recent events. The money raised on the four previous Liberty Loans has been spent, and there yet are bills to be met. Also, it will cost many millions of dollars to bring back our American soldiers from overseas. In the meanwhile, the men must be fed and kept up in every way, in order that the American army may maintain its excellent reputation for efficiency.

The point of all these remarks is, that it is incumbent upon all of us to keep on saving as we have been doing during the past year, and, more, to put by every dollar we can, investing it in government paper, such as War-Savings Stamps and Thrift Stamps, or to put it in the bank in readiness for the Fifth Loan whenever the government may decide to announce it. In order to make available needed funds before that time, the Treasury Department now is selling Anticipation Certificates that cover the Federal Taxes due this year and designate the subscription for the coming Fifth Loan.

All this is nothing to be complained of. As a people, we have learned to save our pennies and dollars, to do without non-essentials, and to live more simply than before. It is this lesson of thrift, as it had been inculcated into the French people fifty years ago, that enabled them to recover so rapidly from the reverses of the Franco-Prussian war. We, on our part, do not have such a humiliating incentive. We have the encouraging knowledge of having aided in a good fight and in an undertaking that is bound to make the world a better place to live in. All the more reason why we must be willing to do our full share, and not to stop as long as this is demanded of us.

FOR AN AUTOMOBILE-TRIP

Nearly every doctor drives a car, and every doctor ought to take a vacation. The ideal vacation is, a trip with a car—a trip on which you can take along the wife and the kiddies, wear your old clothes, and sleep in the open. (Of course, the madam may object to sleeping in the open, in which event, you will defer to her wishes and sleep in hotels.)

Now—the purpose of this editorial item is, to introduce a symposium on automobile-vacations, this symposium to appear in one or more subsequent issues of CLINICAL MEDICINE, in or after our June issue.

Many of you have taken trips of this kind. You know all about the scenery, the roads, the entertainments, all the many advantages as well as disadvantages of such a trip across the country. Write this up and let us have it for publication; and, if you have any advice to offer about the car that you drive, as also about car "diseases" and how to cure them, put that into your story.

May I tell you a deep secret? I am going to take an automobile-trip myself next summer, and I want to know just where to go. I am looking forward to the receipt of your letters, because I am sure that among them I shall find just the tip that I am looking for. So, then, I am hoping that there will be coming in a bunch—a big bunch—of stories. And, don't put off the writing of them too long. Put on your thinking-cap and yank out your fountain-pens. Procrastination, you know, is the thief of time, and has killed many a child before it was born.

THEODORE ROOSEVELT—AMERICAN

The American Review of Reviews reproduces in its February number a cartoon from *The New York Times*, depicting how, in the opinion of the artist, Mr. Marcus, the late Theodore Roosevelt will be remembered. The drawing shows a memorial tablet with the name Theodore Roosevelt. Underneath are crossed out his various attributes and pursuits, namely, president, statesmen, soldier, historian, explorer, naturalist, orator. All these are marked out by History who stands before the memorial tablet and has written underneath, in large letters, the word American.

That is as true a tribute to the memory of Mr. Theodore Roosevelt as has come to our attention. Much has been recorded and will be written concerning this remarkable figure in the history of the American people for the last quarter-century. But, nothing will be able to equal in truth and terseness the one attribute that will keep his name before posterity as that of having been an American in the best meaning of the word. Fearless and true, industrious and eager to learn, and to complete and round out his knowledge, with an almost passionate desire to benefit his fellowmen, to uphold the cause of justice and truth and liberty, Roosevelt could not fail to make just as good and cordial enemies as he did friends; but, no matter who were his opponents, nobody could deny him honesty of purpose and sincerity of action. Mr. Roosevelt's name is recorded with those of the greatest Americans. He lived a full life and leaves his memory green behind him.

Friends made for an end don't last till the end. Any friendship that has to be bought, not, necessarily, in dollars, but, by fawning or flattering or dining or entertaining, is not worth the price; it is not worth having. Smiles don't win the best kind of friends; it's what is behind the smiles—personality, ability. Friendships inspired by your pocketbook are not friendships; they are, as far as you are concerned, frauds, for, they are not genuine, they are not true-blue, they are not sincere. Deliberately setting out to win friends for selfish motives is like deliberately setting out to win happiness; you gain friends as you gain happiness, not by purposely trying to obtain them, but by meriting them in the course of the day's work.

—Albert H. Wiggin.

DISEASES THAT ARE TRANSMISSIBLE FROM THE DOMESTIC ANIMALS TO HUMANS

In this issue of CLINICAL MEDICINE, we publish a discussion by Lieut. G. H. Conn of the Veterinary Corps, U. S. Army, concerning those diseases that are prevalent primarily among animals but which also possess or can acquire pathogenic properties for humans, so that the diseased animals become dangerous to persons handling them or coming in contact with them.

Lieutenant Conn has enumerated the most important and frequent diseases the epidemiology of which concerns both animals and humans. There are, however, several other maladies that are transmitted to man in a similar manner and which, therefore, become of considerable economic importance. While it is not always the case that these diseases occur primarily in domestic animals, they, at least, often are prevalent in animals that infest the domiciles of man as for instance rats as carriers of plague. Moreover, the transmission does not necessarily take place by direct contact but frequently is intermediated by insects, such as flies or fleas. Nevertheless, it is of interest to refer to a few diseases not mentioned by Lieutenant Conn in order to supplement the list.

For us, in America, the diseases of greatest importance are, plague and Rocky Mountain spotted fever; in other countries

there are to be considered Malta fever and trypanosomiasis, among others.

Plague is primarily a disease of rats while man contracts his infection from these animals. With the exception of bubonic plague, which, under certain circumstances, is transmitted directly from man to man, plague infections originate from the bite of fleas that have become infected by feeding on the blood of plagued rats. A rat might become infected from bites received in a fight with an infected rat, or man might be infected through a cut while handling plague material. But, these methods are relatively of subordinate importance. Dieudonné and others have pointed out justly that plague-stricken rats and rats dead of plague are a far greater menace to a community than are cases of bubonic plague in human beings.

Rocky Mountain spotted fever has prevailed in Montana and Idaho for several decades and cases have been reported from virtually all of the Rocky Mountain states. It is transmitted through the bite of a tick, which facts suggests the necessity of some host mammal for the perpetuation of the disease; and, indeed, it is largely sheep and other domestic animals, as also certain small wild animals like squirrels, from which spotted fever is transmitted to man through the intermediation of the tick.

In the case of trypanosomiasis, practically the only method of transmission of the disease is by infected tsetse flies. These flies feed upon animals such as antelopes and others ill with trypanosomiasis and may then transmit the infection to man by their bite.

While the infection of Malta fever probably may be taken in through wounds upon the mucous membrane, or by food and drink introduced through the mouth, recent work by the British commission for the investigation of Mediterranean fever points strongly to milk from goats suffering from Malta fever as a probable factor for the continuance of the disease in Malta. This commission found that the milk of over ten percent of the Maltese goats examined contained the micrococcus. When the goats' milk supply to the Naval Military Hospitals in Malta was pasteurized or changed for canned milk, the prevalence of the disease practically ceased in the hospitals. Mohler's observations in Texas seem to confirm this, in that the Mexican goat herders who boil their milk are rarely infected, and Malta fever was stamped out of Port Said by destroying all infected goats.

The man's a rotter who starts out to make friends for what there is in it for him. He's also a fool, for, people will soon get onto his curves.
—Albert H. Wiggin.

HOW MUCH DOES FRIENDSHIP COUNT IN BUSINESS?

In the current number of *The American Magazine*, B. C. Forbes reports a conversation that he had with Albert H. Wiggin, the head of the Chase National Bank, of New York, on the commercial value of friends.

Mr. Wiggin has much to say regarding the gaining and holding of friends and, also, concerning the advantages that one may gain from them. Some of his remarks are so to the point that we have used them as fillerettes between the editorial articles in this number. Please read them all; they are worth it.

As we take it, the matter of gaining friends, and of holding them, by no means, is a commercial proposition, not even in business. This, of course, is nothing new, but, it may be as well to stress the fact. Time was, not so long ago, when business affairs were conducted in accordance with the ancient "let the buyer beware." The last years, less than a generation, have seen the development and the proving of the far more dependable view that business is not a question of getting the best of the other fellow, but, rather, a matter of dealing for mutual advantage. For this reason, friendships are not to be made to serve ulterior motives but, as Mr. Wiggin shows, follow naturally by way of reward of honest treatment of others.

We have heard it said, and learned many years ago, in the Latin class: *"manus manum lavat,"* one hand washes the other—one good turn deserves another. This philosophy reminds one of the "senatorial courtesy" through which votes are exchanged, a senator voting for a certain proposition on conditions that his "friends" shall vote for measures that he particularly desires to have passed. This sort of mercenary friendship is not that referred to or demonstrated as superior by Mr. Wiggin. He makes friends because he has something to offer in return; not so much material

benefit, but stimulation, enthusiasm, loyalty, sympathy and encouragement. According to Mr. Wiggin, one does not put his friends into the way of doing things, but, these are chosen for big positions because they have, already, proved their worth. Mr. Wiggin's philosophy regarding business friendships is possibly novel in its unafraid terseness and abruptness of description. However, come to think of it, it is based on sound sense and on truth. We make friends when, and because, we deserve to make them.

To bring the thing home to our own circumstances. Often enough, a physician, especially a young man, is called because of a friendly feeling for him. That, though, is only offering an opportunity to give service. Strong and lasting friends are made only if they are deserved. We may be given the chance. It depends on us to deliver the goods, and, doing so, to earn friends. Think it over, doctor.

The man who is afraid, when occasion demands, to make an enemy is not fitted to be a worth-while friend. —Albert H. Wiggin.

UNCLE SAM INSURANCE AGENT

One of the many tremendous business enterprises that the United States government undertook upon entering the war and on making arrangements to finance its many and various phases was, the insuring of soldiers' and sailors' lives with the U. S. Government at a cost to the insured man that was just about sufficient to meet the expense of this vast undertaking. The immensity of this business may be judged by the fact that the insurance carried by the soldiers and sailors in Uncle Sam's service amounted to a grand total of almost thirty-seven billion dollars.

The insurance-company which Uncle Sam has established for the protection of his nephews is the greatest life-insurance company in the world and is as safe and reliable as is the United States government itself. It is the intention to continue, after demobilization, the insurance through the days of readjustment and peace. In a recent communication to the soldiers and sailors of America, Mr. McAdoo urges all the men not to permit their insurance to lapse, but, to continue it by regular payment of premiums, so as to be able, in the course of time, to change it into a standard government-policy, without resubmitting to a medical examination. The rate at which this insurance is written is extraordinarily low—lower than any private concern could sustain. It is to the interest of our own men not to permit their insurance to lapse and physicians should counsel their young friends against such a step.

WHAT SHALL I DO WITH MY LEISURE?

I know that many of you, reading the title of this editorial, will be inclined to answer the question raised with a remark something like this: "Leisure? I haven't any."

My answer to you is—"You are mistaken, my dear doctor; you have a great deal of leisure, only you don't know it."

Every man has leisure, and the use he makes of it determines the kind of man he is and measures the quality and quantity of the success he is destined to achieve.

These bromidic remarks are intended simply as an introduction to Doctor Rittenhouse's fine article published elsewhere in this issue. It is an article which I hope every reader of CLINICAL MEDICINE will go through religiously, and I trust that no man who reads it will fail to take advantage of the inspiration which it carries.

Like Doctor Rittenhouse, I believe that no man can become a really full man, can rise to anywhere near the full measure of his capacities who is not a reading man. Nor should his reading be limited to the imperative requirements of his profession. That that man gets most out of life whose interests are widest, certainly is illustrated by the life of Theodore Roosevelt, concerning whom Doctor Rittenhouse writes so sympathetically.

In this connection, I want to urge every reader of CLINICAL MEDICINE to write to the Bureau of Education, Washington, D. C., and ask for the lists of the reading courses recommended by the Home Education Division. It has arranged courses of this kind for boys, girls, mothers, and for general reading, covering such topics as American history, classics, fiction, and the like. Any person who completes one of these courses and will give satisfactory evidence of the fact to the Bureau, will be given a certificate signed by the Commis-

sioner of Education and bearing Uncle Sam's seal.

I wish those of our readers who have fads and fancies of their own concerning reading and other things of cultural value would write us of their experience for publication in CLINICAL MEDICINE.

Again I want to say that I hope everybody will read Doctor Rittenhouse's article.

Make good first and you will make friends.
—Albert H. Wiggin.

NEW FEDERAL LEGISLATION OF INTEREST TO PHYSICIANS

In the new Finance Bill recently passed by Congress, a number of changes are made which are of very great interest and importance to physicians.

First, the physicians' narcotic-license fee is increased from $1.00 to $3.00 per year.

It is further provided that the dispensing physician, who is now specifically mentioned under the law as a "vendor" of narcotics,*"shall keep a record of all sales, exchanges or gifts of such preparations and remedies* in such manner as the Commissioner of Internal Revenue, with the approval of the Secretary of Agriculture, shall direct. Such records shall be preserved for a period of two years, in such a way as to be readily accessible to any officer, agent or employe of the Treasury Department duly authorized for that purpose, and the state, territorial, district, municipal, and insular officers named in Section 5 of this act . . ."

Another phase of the Finance Bill that is of vital interest to physicians involves the payment by the consumer of the so-called excise tax on medicinal preparations, including biologics. The House draft provided for a tax of 10 percent, and the Senate draft for one of 4 percent, or, rather, 1 cent in every 25 or fraction thereof. As the bill was drafted, the physician dispensing his own medicines became a "consumer" in the eyes of the law, and would therefore have been compelled to pay this tax. This draft made an exemption from taxation as regards serums and antitoxins, but, it was so carelessly drawn that vaccines and bacterins became taxable.

An effort was made to secure a modification of this tax so as to exempt the medicinal and biologic preparations used by physicians. With this in mind, an amendment was adopted by the Senate, exempting "medicinal preparations not advertised to the general lay public". This was stricken out in conference, but, finally at the eleventh hour, the following amendment was adopted by the conference committee to replace it:

"Provided that the provisions of this section shall not apply to the sale of vaccines and bacterins which are not advertised to the general lay public, nor to the sale, by a physician in personal attendance upon a patient, of medical preparations not so advertised."

As the law passed and now stands, therefore, all biologic preparations used by physicians are exempt from taxation, and all medicinal preparations which they personally administer.

This legislation again shows the importance of organization for legislative defense on the part of the medical profession. The physician should interest himself in these matters which are of vital concern to his professional and financial success. Is there not *some* organization big enough to take the interests of the average (including country) doctors under its wings?

"DOCTORS WANTED"

In the monthly bulletin of the department of health of one of the largest cities of the country, there is an announcement to the effect that there are four vacancies for assistant physicians at a certain hospital for the insane; two at a salary of nine hundred dollars per annum, and two at seven hundred and fifty dollars per annum, including board, lodging and laundry.

Computing the latter three items at the rate of, say, fifteen dollars per week, which probably is considerably in excess of what it costs to "board, lodge and wash" these physicians, that would be an additional seven hundred and eighty dollars, bringing the salaries up to the magnificent sums of about seventeen hundred dollars and fifteen hundred dollars respectively.

In order to be able to earn these princely incomes, the applicants must be graduates of A 1 medical schools; which means that they must have devoted at least six years to the study of medicine both in

college and in hospital. They must have acquired a large amount of highly specialized information and technic such as should make it possible for them to earn incomes upon which they could subsist comfortably, certainly not less than three thousand dollars a year.

There is no doubt that many young graduates will compete for these positions. Needs must when the devil drives. The pity is, that positions as assistant physicians carry such shamefully low remuneration.

The reason it sometimes—in fact, often—happens that a heavyweight job is given to a friend of someone at the top is, because the someone at the top usually chooses as his friends heavyweight fellows.
—Albert H. Wiggin.

THE NONVENEREAL ACQUIREMENT OF GONORRHEA

In a brief note appearing among the leading articles in this issue, Dr. G. Frank Lydston, of Chicago, criticizes the attitude of physicians generally in that they doubt, and even deny, the possibility of acquiring gonorrhea innocently, that is, without unclean sexual contact, while the clinical entity of *syphilis insontium* is acknowledged without hesitation. Cheap witticisms are indulged in, especially on the occasional claims made to physicians that gonorrhea has been acquired, innocently, in the water closet; and, yet, as Doctor Lydston shows clearly, it is quite possible that innocent persons, especially women, are exposed to the dreadful infliction of gonorrhea by this very means.

The present writer has such a case in mind and he had known the patient intimately for many years. The case concerns a woman in middle life in whom the ordinary method of gonorrhea-infection can in nowise be suspected, and her simple assertion to the contrary was quite sufficient to the writer to exclude this mode of transmission. Some weeks before this patient came to consult the writer, she had been obliged to travel through a considerable portion of the northwestern states, being frequently obliged, for want of better convenience, to relieve herself in the toilet rooms of railroad stations. There is positively no question, in the writer's mind, that it was in a place like this that her gonorrhea was acquired. The specific nature of the infection was so foreign to our preconceived notion in this instance that the discovery of the Neisserian diplococci in the smears came as a painful surprise. However, active treatment fortunately was successful in course of time and there has been no recurrence. This, by the way.

The point that we wish to make is, that, according to our personal experience, there exists a *gonorrhea insontium* just as there exists a *syphilis insontium*. Physicians will do well to be not too cynically distrustful of human veracity but to remember that even the (apparently) most incredible assertions on the part of patients *may* be based upon fact.

THE PROBLEM OF WAR BREAD

Last year, and the year before that, at the height of the food restrictions necessitated through our sending vast quantities of wheat to the Allied countries and our voluntarily restricting our own consumption of this staple foodstuff, we had some slight taste of war bread, and, as a matter of course, grumbled about it; mostly good-naturedly, though, because it did not please our pampered palates as much as did the brand of the "staff of life" to which we had been accustomed in prewar times. And yet, in this matter of food restriction we did not even faintly approach the deprivations to which European nations were subjected for the simple reason that no wheat was available.

In a recent number of *Le Monde Médical*, Doctor Camescasse writes in vigorous terms concerning the "detestable bread" that the French were obliged to eat and which was responsible for attacks of extremely painful coprostasis leading to colic and diarrhea, asserting that these distressful consequences of restricting the food supplies were but another item that would have to be charged to the "German Crime", namely, the great war.

The attacks which Doctor Camescasse describes were something like the following. A man of active occupation and who never failed to have a free movement of the bowels, in the morning, is attacked one evening by terrible pain in the region of the appendix. Reaching his residence with difficulty, he seeks the toilet and, with the perspiration streaming from him

while he almost faints, he has a sensation as though he must expel an immense amount of feces. Alas! it is only wind, but, in enormous quantity and passing for a very long period of time. These attacks recur, being followed by diarrheic stools and these giving place to more solid feces; but, even then, the colon still remains filled with fecal matter which it requires days to evacuate.

In cases like this, Doctor Camescasse had recourse to abdominal compresses of hot laudanum water and hypodermic injections of morphine. Every four hours he ordered, in alternation, a coffeespoonful of castor oil and a powder containing calomel 0.05 centigram, powdered belladonna 5 milligrams, lactose 0.25 centigram.

Under the influence of these remedies there occurred a continuous escape of enormous amounts of wind and as much as four pounds of feces, "of all kinds and of all ages", hardened balls, soft masses, sticky, of unequal coloring, and so on.

In addition to the bread peculiar to the war time which Doctor Camescasse incriminates particularly as the cause of this distressing attack of coprostasis, he also attributes considerable etiologic importance to the one-sided and excessive vegetarianism in which some people were forced to indulge.

Where a man's duties bring him in contact with other people, his personality counts a great deal, for, the man who makes friends gets on better, and paves the way for more opportunities, than the man who has failed to cultivate a reasonably attractive personality. —Albert H. Wiggin.

PASS IT ON

Thirty odd years ago, when I was a young student struggling to make a living, a good friend presented me with a duplicate copy of Webster's "Unabridged" of which I was greatly in need, but, without being able to purchase a copy. Some years later, when I offered to return the dictionary, I was told to keep it until I could find somebody in need of it and, then, **to pass it on.**

This experience, many times, has been a lesson to me; and, often, when the opportunity presented for doing somebody a good turn or for accomplishing something that might be good enough in itself but not of immediate, tangible, value to me, I was put in mind of that old injunction to pass it on; time and again the accomplishment of a certain deed was repaid many times, not only in the satisfaction derived therefrom and in the opportunity to be of service to others, but, also, by inducing others to practice the same rule of passing it on, by mentioning the incentive that guided me.

Life is not only a question of supply and demand but, it is a problem of give and take. Frequently, the giving apparently is not paralleled by a commensurate taking, in the sense of receiving; it seems as though some people do all the giving while others do nothing but take. Yet come to think of it, life has a way of balancing things pretty evenly and, usually, the giving is repaid in some way sooner or later. At any rate, the philosophy of giving because one has received at some previous time, the cordial passing it on to others, is a wholesome one and is always productive of satisfying results

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THE "COOTIE"—DOMESTIC VARIETY

So much has been said, in print and by word of mouth, by every soldier returning from trench-life in France, of that pestilential little insect, the "cootie" that we have come to regard it almost as indigenous to foreign lands and peculiarly fond of soldiers. It is, therefore, some little surprise to learn from *The Weekly Bulletin* of the Department of Health of the City of New York that "lousiness" is extremely common in the well-read and presumably well-bred schoolchildren of that great city. Reports covering the 5-year period from 1913 to 1917 show that 1,257,831 cases of phthiriasis had been recorded among an average annual enrollment of 906,000 pupils. Indeed more than 25 percent of the children were infested with these body-lice.

Today, the louse no longer is looked upon as a necessary evil, to be endured with humility, and the belief, that "they always come out of the blood every spring or fall," no longer prevails in polite society. Lousiness is not "bad form," but, is positively dangerous, since it undoubtedly is the means of spreading various serious infectious diseases. Typhus fever has been definitely traced to this source of transmission. So has "trench-fever," which

probably is a new name for an old affection. It is more than likely that a number of other serious complaints are transmitted by the same parasite.

Doctors that are interested in the health of schoolchildren should not negect the children's hair. *Cherchez la puce!* While it may be less important to examine this part of the body than the chest-cavity, nevertheless, it is quite possible that the lice concealed therein may be of as much danger to the child's companions and its own health as are some of the more common and more thought-about ailments.

We suggest the declaration of a world-war against the "cootie"—and let's begin at home.

Friends don't make a man, but, if a man has the right caliber, he can not help making friends; they just feel drawn to him. The thing to do is not, to set out to cultivate friends who, you figure, may prove useful, but, to cultivate and develop qualities and abilities that increase your own usefulness. If you do that, and do it, of course, on the square, the friendship part will take care of itself.

—Albert H. Wiggin.

DR. ROBERT C. MURPHY

On page 238 of this issue we reproduce a group picture of the medical officers attached to Base Hospital 101 at St. Nazaire, France, where Capt. Robert C. Murphy is now stationed.

Captain Murphy is well known to the readers of CLINICAL MEDICINE through the interesting articles on "The Making of an Army Medical Officer" that he contributed occasionally for over a year, in fact ever since he first entered the training camp. While we published a likeness of him when he was still a lieutenant (Jan. issue, p. 72), the present group picture also is of much interest.

THE MOVING-POWER OF SELF-INTEREST

The world hinges on self-interest.

It is the pivot on which progress and enterprise turn.

It is the human and unquenchable desire for the best there is that spurs the mind to action and the body to supreme effort.

Money, fame, luxury, the joy of accomplishment—these are some of the goals toward which self-interest drives us!

Every great bridge, every towering building, every work of art, every home and fireside are monuments to this dominant egotism. It is the foundation stone of our lives—and a stumbling block to our feet! A foundation so long as it whips us to creative effort, a stumbling block when we lose all regard for the rights of others.

Business and politics have no monopoly on the inherent instinct that causes us to elevate ourselves and our needs above those of others.

Every tender charity, every religious movement, every attack on crime, every crusade against disease originates in self-interest, if only as a means of quieting an inflamed conscience, which, otherwise, would give its hapless possessor no rest.

The man who MUST preach or have no peace, the reformer who WILL reshape the body politic or die trying, the missionary who INSISTS on cramming his religion down the throats of a people who are quite likely to boil him in oil, are all spurred by self-interest—though they know it not and would be the last to believe it!

The rich man's son is so often a failure and a nuisance because so many of his desires are gratified that he finds little left which he considers worth a struggle. If, perchance, he is taught that there are tremendous possibilities for personal gratification in the wise administration of great wealth, he then becomes a joy to himself and a benefactor to mankind.

A wealthy man who died recently used to fill his pockets every morning with gold pieces which he distributed during the day, wherever he saw an opportunity of relieving distress or giving pleasure.

He gave wisely, but, much good as his gold pieces undoubtedly did, they were worth more to him, himself, than to anyone else. With every coin bestowed he enjoyed a new thrill, a fresh consciousness of good done, of happiness given.

He bought his pleasure hour by hour, day by day, and it was multiplied to him a thousandfold because of the pleasure of others that he promoted.

Generous? Yes, graciously, judiciously, happily generous.

Unselfish? Absolutely, NO! For, there is no question that, had he suddenly found it impossible to distribute his largess and witness the happiness he bestowed, he would have suffered far more than his beneficiaries!

For, there is a selfishness embodying so much of the Divine that this sad old earth

is hungering and thirsting for it today; a selfishness which is only gratified by the good of others, by making the world better and happier.

Self-interest, refined and elevated, self-interest, creative, developing, embracing all mankind, is the power behind all advancement today, the impetus which is rolling the world uphill, milleniumward!

It is not the sort of selfishness which Germany could possibly understand, but, the kind that is an attribute of every loyal American citizen.

THE SELFISHNESS OF UNSELFISHNESS

The preceding editorial article opens up a train of reasoning according to which a somewhat unusual construction may be put upon acts that commonly are considered as being dictated by motives of pure unselfishness, of entire disregard of self. Indeed, it has frequently afforded me amusement to put aside the thanks of some of my patients whom I had treated gratuitously by denying that my services were extended unselfishly, claiming that they were indeed prompted by motives of absolute selfishness.

Why, to go to the bottom of things, do we extend kindness to others? Is it only for the reason that we wish to help them? Is it not rather because the doing of the kindness, the being of assistance, the accomplishing a good deed, is a source of personal satisfaction to ourselves? It is not necessary that we claim all sorts of credit and inspect our shoulder blades for sprouting wings or believe ourselves entitled to a front seat in Heaven. Indeed, we may refuse all manner of thanks and assurances of appreciation. We may disclaim any merit, we may refuse to consider that we have done anything remarkable; yet, the doing of a kind deed inevitably is followed by a degree of satisfaction that carries with it the best reward.

It is for this reason that I claim that, in all unselfish deeds, there underlies a factor of selfishness in so far as they are a means of self gratification.

Is it necessary, therefore, to refrain from helping others without visible or tangible reward? By no means. Surely, that would be driving the most puritanical conscience too far and would defeat one of the greatest laws of humanity, that of mutual helpfulness. In the language of the Apostle, there are faith, hope and charity, amongst which charity is the greatest. Not, charity in the modern-day sense, but, in its wider meaning of affectionate helpfulness, of a desire to do good without regard to personal benefit. Yet, no matter how "self-forgetful" one may be, there is a reward and, often, a good deed is unconsciously inspired by the desire of self gratification. And, so, we travel in the circle of the selfishness of unselfishness.

When I die, I want no shaft of marble or traceried stone to cover my resting-place. I have spent my life making things. Let my memory be kept green by the work of my hands. When I go, I wish to leave behind me humming mills, smoking chimneys, and great furnaces hot with creative fires of industry. Let those be my monument, and I shall be satisfied. —Charles M. Schwab.

DEBARKING THE HOSPITAL CASES

Perhaps no division of the Red Cross activities is more picturesque than the Motor Corps, handled entirely by women volunteers. This corps includes not only the ambulance corps, whose remarkable work has made its members famous in every great disaster, but also the cars used officially for necessary passenger service, transportation of officers, and other purposes.

Some idea of the vast extent of this service may be gathered from the fact that, in the Atlantic Division alone, during the month of January, 1919, the Red Cross Motor Corps transported 981 litter cases, and 1,470 ambulatory cases, working from ports of debarkation adjacent to New York City. The men were taken from the boats to the debarkation hospitals. In maintaining this service 347 ambulances were kept on duty and 108 passenger cars were used. In addition, transportation was provided to 255 casual officers and service was given on 264 orders from the army. During the Northern-Pacific disaster, the ambulances of the motor corps were on steady duty for more than forty-eight hours, darting between the scene of the grounded liner at Fire Island, L. I., the Naval Training Station and the local hospitals.

Absolute military discipline is maintained and the efficiency of the service is kept at the highest point. Dr. Dorothy Smyley is in charge of the Motor Corps of the Atlantic Division.

Leading Articles

Dietetic Economics

With Reference to Land Utilization

By A. L. BENEDICT, A. M., M. D., Buffalo, New York

THE uses of land, in order of choice, as determined by the valuation ordinarily placed upon it, are: business, residence, transit, pleasure (parks, etc.), burial, extraction of mineral products (including even clay and sand), food production, and, formerly, fuel (however, at present, forests are mainly used as parts of parks or for the industrial uses of wood). The value of land, even when it is utilized in food production, is determined by its potential use for other purposes, including, therefore, accessibility, rather than by its quality as a potential food producer. Paradoxically, also, as will be illustrated by various points herein to be discussed, the value of land is, in the main, inversely proportionate to that of the food raised upon it.

When we consider that food ranks next after oxygen and water as a vital necessity of existence, it is obvious that dietetic economics is, at present, fundamentally distorted. This distortion, however, is deliberate, although not fully realized. Food, shelter, heat, and clothing were almost the only original necessities requiring the application of labor and, of these, food usually involved the greatest effort. At present, we consider worthy of the highest sociologic thought the fact that the poorest and least-skilled laborer spends half of his earnings for the food of his family; even the skilled laborer today complains bitterly of the high cost of food, even though he earns at least his own and his wife's rations in about the same time spent by him in eating the food; the fairly well-to-do person, still, not so prosperous as to be indifferent to the subject, spends perhaps a tenth of his income for food. Yet, these complaints and the perversion of economics in regard to land are right and justified, for, civilized life implies that one's physical needs should be subordinated as much as possible to intellectual and spiritual occupation.

Comparative Productivity of France and Other Countries

Lepique has recently published French statistics, which throw considerable light upon the problem of self-support by a nation. His data are, perhaps, all the more valuable, because France is populated to what may be considered a normal density for our type of civilization, yet, not as densely as are various other European countries; the problem thus being solved for us Americans far in advance of our own immediate needs. France has a population of about 200 per square mile, for the United States it is but 30 per square mile, about a tenth of the land being cultivated.

In 1915, when the influence of the war both stimulated and impeded the raising of crops, France produced enough food to feed her own population for 402 days, the day's rations for the entire population relative to each foodstuff being as follows: Wheat, 168; rye, barley, buckwheat, and maize, 54; potatoes, 60; milk, 42; meat, 40; peas, beans, et cetera, 8; artichokes, 8; sugar-beets, 5; chestnuts, 3; olives, et cetera, 3; walnuts, 2; poultry, 2; fish, 2; eggs, 2 1-2; fruit, 1 1-2; fresh green vegetables, 1.

The writer has been unable to compile corresponding statistics for our own country; still, our cereal products alone, if used for human consumption, are at least five times our total yearly dietetic needs on an equivalent caloric basis. The actual

use of a few staple foodstuffs, practically all of which are produced within our continental boundaries, except about three-fourths of the sugar, is about as follows: Wheat (5 bushels, yielding, at 70 percent milling, a little over one barrel of flour), one hundred and thirty days' rations; other cereals, 20; potatoes, 30; meat, 52; butter, 45; sugar, 68. Total 345. It is probable that milk, for France, includes butter; which, by no means, is as freely used there as by us. While the estimates for the United States are not accurate, attempts to criticize them tend to show too low rather than too high figures and there is a strong suspicion that the small remainder of twenty days' rations for a large variety of foods is to be explained on the basis of excessive consumption and waste, rather than by an excessive estimate for the staples mentioned. For example, there is an old rule of housewives, that butter comes to a pound per capita per week, as well as the old complaint, antedating recent prices, that it costs a tenth of the total food-bill—a rather unreasonable complaint, when we realize that on any such allowance it would supply considerably more than a tenth of the total calories needed.

At a liberal allowance, the caloric requirements per capita per annum is, one million. A less liberal and more exact estimate is given, as follows, by Graham Lusk:

Ages	Number of individuals in U. S.	Calories per capita	Calories per diem for U. S., millions	Percent of total
0 to 5	14,384,000	1500	21,576	9
6 to 13	15,003,000	2300	34,507	13
6 to 9		2500		
7 to 13		2100		
14 to 18 M	5,129,000	3000	15,387	6
14 to 18 F	5,094,000	2500	12,710	5
19 and upward				
M	33,770,000	3000	101,310	38
F	37,073,000	2500	77,683	29
Total	104,000,000		263,173	100

It will be seen that the writer's liberal estimate of a million calories per capita per annum would come to 104 million millions, while the above figures amount to only a trifle over 96 million millions.

Some Statistics Anent the United States

While our country, as a whole, is far from the time when any exact study of the economics of food production will become necessary, a fourth to a third of our population already lives in cities of sufficient size so that, for each of them, the uncertainties and expense of transportation, especially for foods that either require rapid transit from producer to consumer, in the interests of wholesomeness and palatability, or which are too bulky for economic long-distance transportation, require almost as careful study as if the 25 to 35 million were united in one densely populated nation. Roughly speaking, each one of these cities may be conceived as a circle, so densely populated that, at best, only a few vegetables, fowls, and eggs may be produced by each, and surrounded by zones; namely:

1. 1 to 5 miles, mainly producing by market-gardening innutritious vegetables and small fruit.
2. 10 to 20 miles, cattle-raising for the direct sale of milk; fowls and eggs.
3. 20 to 30 miles, miscellaneous small-scale farming, large fruits, legumes, potatoes, et cetera, cereals, and meat supplemental to the next zone.
4. 100 to 1,000 miles, land adapted to wholesale production of cereals and meat.
5. Foreign countries supplying products not raised within our confines.
6. Regularly distributed in the second and third zones, areas of hilly land, not adapted to crop raising and relatively hampered in regard to transportation, devoted mainly to cattle-raising for the production of cheese and butter.

Land in the immediate vicinity of large cities ranges in value from one-half to five million dollars per square mile, whereas, that used for the wholesale production of cereals and meat-ranges, is valued at from about $2,000 to $5,000, and that for farm-

ing on a smaller scale, from about $10,000 to $100,000. As a general rule, the more valuable the land, the greater the expenses for fertilizing, equipment, and labor, and the greater the resident population to be supported directly or indirectly from it. Indirectly, every man, woman, and child in a large city has a fixed investment of about $40 in suburban land, half of the products of which must go to the support of a resident working population. This $40 is, so to speak, an initiation in a club, and he must pay at club-rates for whatever he buys.

Reflections Regarding Vegetable Foods

However, the essential economic flaw in this is not immediately apparent, but, is well supported by Lepique's statistics for France. It is found that, of the 402-days' rations produced by France, only one was in the form of fresh green vegetables. At first thought, this would indicate deficient cultivation of this sort of foods, either quantitatively or qualitatively; however, anyone that has visited France knows that one can scarcely imagine a more liberal or better supply of these vegetables there offered. The flaw is inherent in botanic chemistry. However useful it may be to supply salts, iron, vegetable acids, and rough material for stimulating peristalsis, these vegetables contain very little organic nutriment, so little, indeed, that one uses up more calories in digesting them than they yield, even if he could hold the enormous quantity of between 25 and 30 pounds that contains the nutritive equivalent of the daily requirement of calories, but, which nothing short of a herbivorous digestive canal can extract. And it is for this sort of fodder that the most expensive land and labor is being employed. To view the same fact from another aspect; think of a poorly paid laborer, forced to buy part of his meals at a restaurant, and needing a *quid pro quo* for every cent that he spends, consuming at the same price as he would pay for a real meal the popular "vegetable platter".

Relation of Food-Values and Land-Values

It is inevitable that the ultimate producer of food will raise the best-paying crop for which his land is available, with due consideration for his own skill, the incidental expense of fertilizer and equipment, labor, and transportation. With proper allowance for all these factors, we find a surprisingly close agreement in the receipts from very varied products and it is still more surprising that the yield in calories for such diverse crops as potatoes, different kinds of cereals, and legumes ranges from 1 to 3 times that of any taken as a standard—about the fluctuation of any one crop according to season, intensity of cultivation, and so on.

Animal products of most kinds also show, among themselves, a somewhat similar narrow range of economic and physiologic yields, but, on an approximate average, are twice as costly to produce in relation to calories, as the vegetable products; however, if we consider the relative value of animal proteid as a reconstructive, the relation of economic to physiologic values is fairly close. Fruits and the innutritious vegetables, being subject to demand rather from the standpoint of the palate than of caloric efficiency, are also of higher cost. It must not be forgotten that such articles of diet have a value that can not be measured solely in calories.

It is significant that there is an exaggerated popular conception of the food-value of the latter class of edibles and that the demand for them depends quite as much upon this misconception as on the very questionable appeal that they make to the palate. It is probable that, with popular education as to food-values, there would be a further equalization of the economic demand for, and the price of vegetables in general, so that, ultimately, the real cost of production in capital invested in land, and in labor, skill, and incidental expenses will be standardized to produce an average equality of return, not only in money, but, in genuine nutritive value.

Productivity of Soil, and Population

It is, by no means, foreign to our subject to discuss some details of the supporting value of land with reference to population.

An acre corresponds to a square of between 205 and 210 feet or about 4,300 square feet. The expense of city-life depends to a considerable degree upon the maintenance of streets and yards, while the essential reason for electing city-life implies reasonable concentration of population. Whether the expense of maintaining street frontage is directly taxed at an almost prohibitive rate beyond a fair allowance for comfort in the construction of dwellings and accessibility of premises or

not, very few urban families can afford or really will desire more than a fourth of an acre of land. With reference to income-statistics recently available, we can go so far as to say that not more than 2 percent of the population can afford more than this amount of land in a real city, and that not more than 10 percent, perhaps not more than 5 percent can afford even this amount. With the usual allowances of 5 persons per family, and 1-6 or more of the area devoted to streets, this density of population is about 10,000 per square mile.

The maximum single family to a single house utilization of city area, as in parts of many eastern cities, works out as back to back rows of houses, each about 20 feet wide and with premises about 100 feet deep, 20 families, 100 persons per acre, or 64,000 to the square mile, not counting streets. According as the layout is nearly square or in long rectangles, and, as the streets vary in width and the depth of lots is more or less liberal, that population of such a residence-district will vary between about 50,000 and 60,000 per square mile. With an increase in the size of families or development of boarding-and rooming-houses, the population may be doubled without gross sanitary objections, especially if roofs are used for recreation. By increasing the number of stories within feasible limits and the introduction of flats or by radical departures from the original construction and the erection of apartments of varying size, a population of 200,000 per square mile may be considered conservative.

Population densities of more than 50,000 per square mile are rare for even the largest American and European cities. Statistics are very misleading, for several reasons. Most cities change their boundaries very seldom, working up, from the inclusion of much territory that is nearly rural in type, to a nearly complete settlement, and then suddenly reverting to the former condition, so that comparisons of cities that are essentially of equal density and with the same provisions for growth, may show enormous differences on a technical definition. As cities reach great magnitude of population, they tend to force cemeteries, large parks, railroad-yards and large manufacturing-plants beyond their boundaries; however, different metropolitan cities of comparable populations differ much in these respects. The accidental inclusion of rivers, bays, et cetera, may, apparently, justify low figures as to density. However, as cities increase in magnitude, there is an imperative demand for greater street-room and more public and semipublic buildings, and there is the spontaneous development of considerable areas given over to business and, therefore, having a permanent population that is insignificant, even though, in working-hours, 5,000 to 10,000 persons may occupy a single block. Thus the tendency toward a high degree of concentration of population automatically checks itself, if we consider the density of population of an entire city.

Cities Should Be Self-Supporting

The amount of land not built upon and theoretically available for cultivation of foods, in the largest cities, is a surprise to one who for the first time has a back-window view after the first impression from the streets of solid masses of masonry. It is altogether likely that even the most densely populated cities could, by utilization of roofs, back yards, parks, and temporarily waste land, and so on, go far toward raising their own innutritious vegetables, as well as eggs and chickens—the objection to the latter being mainly a somewhat inconsistent one as to noise, and a sanitary objection which is but imaginary if proper precautions are observed. Indeed, as the vocal cords of birds are readily accessible, the former objection could easily be removed. If we stop to consider the real reason why fruit-trees are not commonly planted in city parks and streets, we find it to be mainly because of the objection to petty thievery. Obviously, a considerable degree of wisely directed philanthropy and organization of labor would be required for a large city to become self-supporting to even this degree.

The estimate of a quarter acre per family—meaning a lot 30×200 or 40×150 or thereabouts—corresponding to a density of about 10,000 per square mile, actually means an average degree of self-support up to the purchase of sugar, cereals, staple mammalian meats, and imported fruits. Many families actually do reach this degree of independence, with due allowance for the fact that an exact relation of demand to supply can not be maintained in all seasons nor for each particular foodstuff that might be desired. By recourse to goats or the cooperative keeping of cows, even dairy products could be produced

within the city itself, certainly up to the production of butter and cheese.

Even without attempting to raise within a city more than the moderate amount of comparatively innutritious vegetables demanded by the palate and to supply dietetic needs not expressible in calories, only about a ninth of the full ration is of a nature demanding, in the interests of freshness and economy of transportation, local extra-urban production. A good crop of potatoes, 300 bushels per acre, often exceeded under intensive cultivation, though two or three times the average yield under wholesale methods, represents the equivalent of full caloric subsistence for about 5,000 persons per square mile, or the supplemental subsistence of 45,000. A city of half a million could be well accommodated in a circle of 3 1-2 miles radius, or about 38 1-2 square miles area, giving a density of about 13,000 per square mile. Such a city, on the basis of the potato crop mentioned, could be self-supporting—aside from staples for which transportation from a long distance is economically possible or necessary—from a zone extending only half a mile beyond the city limits.

It is scarcely necessary to point out the various practical obstacles to the fulfillment of this theoretic possibility, such as failure to conform to the mathematic maximum of area to the minimum of diameter and periphery, interference by extra-urban demands for land to the exclusion of crops, lack of individual industry and co-operative planning for intra-mural production of foodstuffs, natural factors rendering land unavailable and the like.

It may be allowable, however, to point out that it has been demonstrated on various scales, some of them of considerable magnitude of area and population, and for crops—using that term in the broadest sense—of very different kinds, that land can easily support more than 1 person per acre, in addition to the resident human and animal population necessary to its economic intensive cultivation. In other words, the net supporting power of land should be about 1,000 persons per square mile. On this basis, a community along the lines of the old conception of a city-state, with a fairly dense industrial nucleus should be completely self-supporting from a territory of about 14 miles' radius from the common center of the city proper of half a million inhabitants and its agricultural population. With some qualifications, communities of other populations would require dimensions proportionate to the square root of the population.

Some Drawbacks

Such a community would, of course, be somewhat limited in its meat ration, as mammals would, necessarily, be restricted to byproducts of land intensively cultivated. It could not enjoy the wide variety of food available by free importation from large distances nor would foodstuffs be as cheap as when obtained largely from land not available for the other demands made upon it by man. Nevertheless, it would constitute a practically possible community and, indeed, one corresponding in a general way to many actually existing communities, if we go backward either historically or in point of social evolution. At present, it is a concept to be considered as political and economic factors render an approach to it desirable.

"We can . . . approach the consideration of most subjects from an historical standpoint, and the young doctor who thinks that pathology began with Virchow gets about the same erroneous notion as the student who begins the study of American history with the Declaration of Independence." OSLER.

Clinical Studies in Mental Diseases

Dementia Praecox

By LEON E. DUVAL, M. D., Washington, D. C.
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SOME months ago, this magazine published a series of four articles of mine, under the heading of "The General Practitioner and His Relation to Practical Psychiatry." In these articles, I endeavored to emphasize the general practitioner's responsibilities in mental cases, and sketched some of the more common symptoms of mental disorder. The present series of articles is intended to supplement the articles referred to, but, the subjects are to be treated differently, and in such a way as to be useful to those who did not read the first series.

I have always found it rather difficult, from textbook descriptions alone, to gain an adequate conception of any symptom-complex, whether in surgery, internal medicine or other branch. In my brief experience, I have always found the case-study method more satisfactory and by far more interesting and instructive. By this method, one gains a mental picture that is much more easily retained than one obtained from cold textbook presentations. This prompted me to attempt to select some typical cases of mental disease, describing them as they present themselves to the one that sees them first, namely, the general practitioner.

The average practitioner does not realize his responsibility in mental cases—the far-reaching results of his failure to recognize the incipient stages of the various psychoses. Economic losses as well as other damage to the life of the community are caused by the irresponsible acts of these patients; and, the longer these mental aberrations are allowed to go on unrecognized, the greater the harm done. The first symptoms of many of the psychoses are observable only to the trained man; to the layman, they may seem to be mere eccentricity or faulty judgment. Alcoholism, wildcat scheming, crime, any of these may indicate beginning mental disease, and, yet, to the untrained man, are quite compatible with sanity and personal responsibility.

In these cases, as I said in a previous article, the physician's responsibility is, first, to the public, second, to the patient—and not the reverse, as some of us are likely to believe. Therefore, our responsibility in this type of case is no small thing. The general practitioner sees comparatively few of these cases, so that it is but natural that he should forget his textbook and lecture-room knowledge of mental disease. When he does see such a case, he usually has a rather vague idea of what to look for, what points to observe, what prognosis he can give the relatives, and so on. My idea in preparing these articles is, to present some of the more commonly seen types of mental cases (so far as any mental case can be typical), in the hope that they may leave in the reader's mind certain fairly clear impressions of the more common symptom-complexes. The cases presented are taken from the records of this hospital, revised and abbreviated so as to present only the more important features. In hospital work, we include in our histories many details that would be of little interest to any one except the specialist. Only commonly observed types will be selected, and will include both functional and organic diseases.

Difficulty of Forming an Opinion

It must be borne in mind that there is a great deal of variation in the mode of onset, symptomatology, and course of these cases, because the mind itself is so complex and so entirely individualistic in each and every one of us. However, I shall endeavor to give only the more commonly seen symptoms; to try to remember rare or unusual types is too confusing for any excepting the specialist.

The important things are, first, to recognize mental disease when one sees it, second, to be able to judge the best disposition of the case, and lastly, to be able to make a fairly accurate prognosis.

The art of prognosis in mental disease is more difficult than in any other branch of medicine. Even the specialist sees his judgments proving false time and again. Many a functional disorder have I seen

well on the road to recovery and informed the anxious relatives that all was well, only to see a sudden relapse occur. On the other hand, not a few gloomy prognoses are ultimately belied—many an apparently poor outlook is proved unjustified by the final result. However, experience with many cases gives a sort of intuition, until one formulates for himself certain signs and rules that he can not usually teach others, but, which do guide him in arriving at more or less accurate judgments in these cases.

Precautions To Be Observed

A word as to treatment of these cases. If at all possible, let the patients be treated by a specialist, preferably in an institution. Whether the victims are to be placed in a private sanitarium or a state hospital, depends entirely upon the type of a given case, the probable duration and severity of symptoms, to say nothing of the length of the family's purse. There are many pitfalls to be avoided, and experience is needed to handle, not only the patient, but, his wellmeaning but too-much-in-a-hurry relatives. Relatives are the bugaboo of all who do this work. They fail to understand why we want so much time to treat the case, why we cannot cure the patient with drugs, hydrotherapy, electricity, suggestions, what not. From the day one takes the case, until the day the patient is discharged, one is besieged by the questions and demands of his relatives and friends. In institutions, these relatives are more easily handled than on the outside, nor is it so easy for the relatives to remove the patient before treatment is completed.

I can not overemphasize the fact that we must proceed slowly with these cases. Do not be too ready to let the patient go into the world as soon as all psychotic symptoms have disappeared. Determine whether or not the recovery is to be permanent. The best way to do this is, to let the patient gradually resume his place in the world. First let him visit his relatives a few days at a time. Gradually extend the length of his visits and let him resume his old employment, returning to the institution to report at definite intervals. Only when it is seen that he is quite able to meet all ordinary situations properly, is it safe to discharge the case. I shall again speak of this matter in more detail under the organic cases. Certain kinds of patients, especially the paranoids, learn to conceal many of their symptoms, so that it often is difficult to say whether a man has recovered from his psychosis or whether he is concealing certain pathological ideas. In these cases, adopt a policy of "watchful waiting," then, if pathological ideas are present, they are most likely to crop out sooner or later. Too often we discharge a paranoid case as apparently cured, only to have the victim promptly returned, he perhaps having, in the meanwhile, committed murder or other serious offense. It is a fairly safe rule to follow that, once a paranoiac, always a paranoiac; possibly with a change of ideas, but nevertheless paranoid.

Study of a Case in Detail

Let us now proceed to the study of the case, a type which makes up no small percentage of the cases that fill our insane hospitals.

The patient, J. C., was twenty-one years of age when first admitted to this hospital. In eight years of school-life, he had absolved only four grades, not, because of defective intelligence, as might be suspected, but, on account of failure to apply himself to his studies with normal interest. After leaving school, he worked at various occupations as an unskilled worker, never remaining more than a few months in any place and earning only very moderate wages. For lack of anything better to do, he enlisted in the army at the age of eighteen. He did not make a good soldier, could not learn his drills, and performed his duties rather indifferently. However, he completed one enlistment, and was in the second year of his second enlistment when put under observation for his mental condition. Just previous to entering the service, he contracted gonorrhea, and had a recurrence in his second year of service. He had practiced masturbation at times since boyhood; his heterosexual life with prostitutes beginning at the age of seventeen. He never had a sweetheart and never was really interested in women.

Following the recurrence of the specific urethritis, which apparently was a very mild attack, he began to show more definite signs of mental disturbance. He gradually became more and more inefficient, until at last he could not perform

any of his duties. Emotional indifference and disturbance of attention and comprehension became manifest. Memory was poor. Hallucinations of sight and hearing later were present. These symptoms brought him under observation and, as a consequence, he was sent to this hospital.

Here, examination showed him to have the same auditory hallucinations. He said that people were reading his mind. More pronounced than either of these symptoms were his somatopsychic delusions. He said that he was suffering from gonorrhea and sore throat, although physical examination failed to reveal either of these troubles. He talked in low tones. was apathetic, and lacked initiative. Physical examination showed that he was very poorly developed, but, otherwise revealed no deficiencies. The urine contained a trace of albumin, while the Wassermann test of the blood was negative. He was discharged from the service, and solicitous relatives insisted upon removing him from the hospital at once.

This man returned voluntarily about two years later, ostensibly for treatment for gonorrhea, in reality, because of a feeling of inefficiency and the lack of ability to maintain a proper contact with the world about him. The mental examination, upon this second admission, proved him to be in the same condition as described above, except that the auditory and visual hallucinations now were absent. Daily he asked for treatment for his gonorrhea, when such did not exist. Two years later, he died, and at autopsy was found to have only one kidney, and that the cause of death was a purulent renal condition.

An Analysis of Case I

To the specialist, the foregoing case presents a common picture. That the man's officers did not recognize the incipient stages of the psychosis, is apparent and it is quite probable that his associates and superiors believed him either lazy or else merely inefficient. In all probability. he was psychotic when he first enlisted. but, the slow progress of the disease did not call attention to the man for nearly six years.

In the simpler types of dementia præcox, of which this is a case, the incipient stages often are very slow in their progress. The gradually increasing inefficiency, with a tendency to seclusiveness, plus a barely observable intellectual deterioration are the first symptoms to make their appearance, and, unless one is aware of their import and is looking for them, they are likely to escape attention.

Briefly summarized, the foregoing case presents the following picture:

A boy of 21, a failure in school, more or less inefficient all his life quite unable to adapt himself to army life, gradually becoming more and more apathetic, emotionally deteriorated, until eventually totally unfit to care for himself. Examination revealed the before-mentioned hallucinations and delusions. Please, mark especially the delusion concerning his having gonorrhea. To the psychiatrist, especially the psychanalyst, this latter symptom tells a whole history. In all likelihood, this delusion is an "idea of grandeur," a psychic compensation for a partial or complete sexual impotency. And in that impotency lies the precipitating factor of the psychosis, when added to the congenital constitutional inferiority. The collective picture is that of hebephrenic dementia præcox—the diagnosis made in this case.

Deductions

This one represents a comparatively simple case, yet, one from which a number of suggestions can be derived. When in an individual of from (approximately) eighteen to thirty or thirty-five years, we find a history of continual failure to find his niche in the world, a lack of ability to become efficient in any place, one begins to think at once of constitutional inferiority, and to suspect the existence of dementia præcox. If, futhermore, we find the individual to be seclusive, eccentric, avoiding the society of the opposite sex, or, if interested in them, failing to prosecute a really successful love-affair, then we grow even more suspicious. If, again, there is a history, one of a too close dependence upon one or the other parent, we are still more justified in believing that we are dealing with a case of incipient dementia præcox. If now we find the patient becoming apathetic, failing to show appropriate emotional reactions to such stimuli as the death of loved ones, financial failures, or to the other stimuli that ordinarily produce in us feelings of sorrow or joy, together with gradual failure of attention and compre-

hension, we then will be quite justified in making a diagnosis of dementia præcox.

Of course, this picture is only one of many seen in this disease, but, it is perhaps the most common mode of onset of the hebephrenic, and is, in its incipiency, one of the most difficult to diagnose.

As to Prognosis

In case one arrives at this diagnosis. what is the prognosis? What is the probability that the individual will recover sufficiently to resume his place in the world again?

First, always be guarded in your promises to the relatives. In giving your opinion as to the outcome of the case, always leave yourself a loophole to provide for whatever the end finally may be.

Remember that this type of the disease is liable to become chronic, with progressive intellectual deterioration. Remember, also, that there are cases which exhibit typical hebephrenic symptoms, yet, rapidly recover. In giving my opinion to relatives, I get around the matter in some such fashion as this:

"This patient," I say, "is suffering from a functional mental disorder known to the profession as dementia præcox." I then briefly explain what is meant by the term "functional." "This disorder is essentially chronic and progressive, with a tendency to gradual failure of the mental faculties. However, there are some cases that end in fairly good recovery and the subjects are able to return to the outside world. In such cases, there is a tendency to recurrence of the disorder. In your relative's case, the outcome can be determined only by careful watching, extending over a period of weeks to months. The outlook as to life and physical health is good. although in the older, more deteriorated cases, the patients are quite susceptible to intercurrent diseases. If you wish to do the best thing possible for the patient. leave his care to the physicians—as a rule, it is best for the patient not to see relatives too often. Be patient, for the improvement is a slow process, at the best. I shall not make any definite promises: the patient may get better or he may not. which way the case will turn only time will tell."

It often is necessary to explain to relatives the nature of the patient's delusions. especially if he has paranoid ideas directed toward his immediate environment. It is distressing to the relatives to have a patient say that the attendants abuse him or that other patients persecute him. If a patient has such delusions, we must explain to the relatives that these ideas are only symptoms of the disease. This is true also of somatopsychic delusions. The relatives may be led to believe that the patient does not receive adequate attention to his physical state. Always be frank with the relatives, for, by so doing, you win their confidence—which it is very necessary to enjoy. In the remissions that sometimes occur in this disease, the relatives are only too ready to believe that the patient has recovered, and it is hard to convince them otherwise, unless you have won their absolute faith in your knowledge of the case.

In my description of the symptomatology. I have omitted the hallucinations and delusions, the bizarre ideas and grotesque behavior which are typical of the hebephrenic type. However, these are later symptoms as a rule, and, at any rate, they attract the attention as the simple apathy and seclusiveness will not. The first-named symptoms, minus the hallucinations, delusions, and so on, if continued. lead to the simple dementia type, in which the prognosis is still less favorable than in the hebephrenic type.

A Special War Type

There is a special type of dementia præcox now being frequently observed in army and navy hospitals. It is seen in boys of eighteen to twenty-five years, and consists of episodes of a few weeks to a few months' duration, in which typical dementia præcox symptoms are present, but clear up rapidly, especially upon their removal to a psychiatric ward and discharge from the service. In these cases, the prognosis seems to be especially good, although we have not as yet had time to determine whether the recovery is permanent.

The basic factor in this special type seems to lie in a lack of adaptability to service conditions. It is most frequently encountered in latent homosexuals, to whom any condition that calls for constant contact with the same sex acts as an irritant to the homosexual conflicts that lie under the surface of consciousness, and which the victims are able to suppress

when in ordinary surroundings, but, are unable to do so in a homosexual environment like the army. By the term "homosexual environment," I mean, not contact with homosexuals, but, an environment consisting wholly of one's own sex—in this instance, men.

In the early stages, it is impossible to tell whether the patient will have one of these brief episodes, or whether he will become a chronic one. Only time will answer this question.

Differentiating Between Psychoneurosis and Incipient Dementia præcox

The differential diagnosis between a psychoneurosis and incipient dementia præcox often presents another difficult problem. One in constant contact with both types is able to see certain subtle differences that are not observable to the untrained man, and these differences are learned only by a sort of intuition born of experience, while difficult to teach to anyone else. If one is uncertain as to a diagnosis, it is best for all concerned to consult a specialist—and let him share the responsibility. If one does not do this and makes an incorrect diagnosis, with a resulting false prognosis, he lays himself open to criticism by the patient's friends. In any case that becomes chronic, the relatives are but too prone to lay the blame upon the first physician that treated the patient. I frequently hear such criticisms as this: "If Doctor Blank had understood the case, John could have been cured in a short time." And it is difficult to make people believe that no known treatment could have affected the course of the disease in the least.

The Treatment

Coming now to the question of treatment of incipient dementia præcox, I advise the average doctor to turn over such cases to a specialist. If the patient's family is in moderate circumstances, it is better to have the patient committed to an institution. Care of such victims in the home is rather expensive. Again, most of these cases do much better if removed from the home atmosphere. In the early stages, psychanalysis by a well-trained analyst may be of considerable assistance. On the other hnd, in many cases, treatment can do little or nothing, except that one try to influence the patient's behavior and to keep him occupied in such a way as to make him do as much and as efficient work as possible. Occupational therapy plays a large part in the treatment of these cases, but, psychotherapy should not be neglected.

While we can not make a psychanalysis in every case, much can be done by sympathetic, understanding talks with these patients. Whether one is a follower of Freud and his theories or not, if he studies these cases carefully, he will find psychosexual conflicts at the bottom of most of this type of cases. I do not mean sexual in the grosser sense, although in some of the cases the sex-problems present consist of plainly indicated repressions of definitely known perverted sexual desires. However, most of these sexual conflicts present are not of this type, but, rather, of the unconscious conflicts due to the effects of former sexual traumata, the repression of infantile or adolescent phantasies, and so on.

In cases not suitable for analysis, some benefit may be derived, at times, from an intelligent discussion of his condition with the patient. However, great tact must be exercised in such discussions, else the physician may find himself the object of a blind hatred on the part of the patient: for, lack of tact may mean the stirring up of tender points which the patient is trying to forget, and which make the psychic struggle more difficult than ever.

In the first weeks of treatment, it often is necessary, for the patient's sake, to prevent the relatives from visiting him. However, there is a limit to our right to to this, and, unless sufficient improvement occurs to warrant this measure, we must not forbid these visits. At times, we find that the visits of relatives have a distinctly irritating and harmful effect. Especially is this liable to be so when the patient is trying to develop a self-reliance that has been crushed by the well meaning but utterly foolish attempt on the part of the parent to protect the patient from all unpleasant stimuli.

Hydrotherapy is useful in some instances, it must be administered, however, by trained people in order to obtain the best results. No two patients require the same treatment, this having to be prescribed for each patient individually.

More points might be brought out, but will be left for a later article.

[*To be continued*]

Diseases That Are Transmissible from the Domestic Animals to Humans

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IN the pursuit of the medical art, our work and purpose is the lessening of pain, the relieving of conditions and the prevention of those diseases to which the members of the race are susceptible; and recognizing this as our duty, it seems that any knowledge or any suggestion that might be of utility to us would be gladly welcomed, regardless of its source. The last few years have brought forth many new things in the field of comparative medicine, and medical men generally have been glad that things have developed thus. A great many regular practitioners of note have said that they often derived knowledge, that was both interesting and useful, from contact with veterinarians standing high in their profession, and veterinarians have adopted many things from human practice.

In presenting the subject named in the title of this paper, it seems that it may prove of interest, if not profitable, since some practitioners may, some time, be confronted by just such conditions. If then no competent veterinarian can be consulted, these few remarks of mine may chance to be of some value.

In a recent issue of *The Veterinary Review*, it is recorded that a woman in Philadelphia died a few weeks ago from the effects of anthrax, that highly infectious disease of horses and cattle and that just a few months ago a young man at Columbus, Ohio, who was one of the professors of Veterinary Medicine at the State University, met death from that other dread disease, glanders, a highly contagious and infectious disease of horses. Thus it behooves all physicians to be alert and ever on guard against just such conditions as those instanced. It is possible that many people have died from some one of the diseases contracted from domestic animals, and, that, owing to the rare occurrence of them among humans, the attending physician may have failed to recognize the condition.

Most of the conditions that are transmitted from animals to men are of a very serious nature, and the mortality from them is very high; serum-therapy has enabled us to reduce the death rate of one of the most distressing ones (and in which the mortality was very high) to a very low figure. I refer to rabies. Since the Pasteur treatment for this infection was inaugurated, hundreds of lives have been saved each year through its instrumentality.

Anthrax

Anthrax is a highly infectious disease of cattle, and horses, principally, but, occasionally hogs, sheep, and dogs will contract it. This condition is characterized by an acute swelling of the spleen and by hemorrhagic infiltrations of the subcutaneous tissues. It is caused by the bacillus anthracis, which is very easily killed; but, under favorable conditions it produces spores that are capable of living in moist inundated lands, so that this disease usually is contracted in the summer time after a warm rainy spell. The blood of animals dead from anthrax is very virulent, and the feed for animals often is infected through that source, especially when the hides of animals are dried in the loft. Animals often take up these spores with the water they drink or with the vegetation grown upon infected soil. Sometimes these bacilli flourish in shallow springs or ponds, whence the animals take them with their drink. This infection is rarely, if at all, transmitted through the milk supply, as the flow of the milk is arrested early in the course of the disease.

The blood of animals dead from anthrax remains in a fluid condition, for which reason the carcass decomposes very rapidly. The blood is dark in color and escapes from the natural orifices; the carcass becomes greatly bloated and the rigor mortis is incomplete. Hemorrhagic and cyanotic mucous and serous membranes and swollen lymph-glands are characteristic.

Anthrax usually develops in from three to ten days. The animal usually shows loss of appetite and stands with a staring

look, or, if left to itself, it may lie down a great deal, while, if made to rise, it will be found to sway and stagger. At this time, it will show all symptoms of an acute infectious disease, the mucous membranes will be hemorrhagic and cyanotic, the animals may show signs of pleurisy and laryngitis, and have diarrhea the stools containing large masses of blood. The flow of milk almost ceases and what little is yielded is dirty-yellow in appearance having a bitter taste. Pregnant animals are liable to abort.

Animals may succumb in from one-half to one hour or they may live for as long as two days, while, in exceptional cases, they have been known to survive seven days. Mostly, however, death follows quickly.

In man, anthrax ordinarily occurs as a local infection of the skin and subcutaneous tissues. It usually is contracted by persons working around dead animals or handling hides, wool, hair, et cetera.

The development of the carbuncle usually is initiated with a very severe pain, followed by a bright-red nodule, this changing to a blackish-red, and becoming filled with a red serum. This stage is followed by a breaking-down of the tissues and the formation of new nodules and vesicles. Surgical treatment occasionally will arrest the progress of this local condition if undertaken early enough. Death results from septicemia. The intestinal infection manifests itself by severe inflammation of the intestines, chills, vomiting, and collapse, besides severe abdominal pain.

Variola, or Vaccinia, or Cowpox

This is a disease that may be transmitted from animals to man, but, is more often transmitted from man to the cow. It has been observed very frequently among cows after children and grown folks had been vaccinated.

The condition manifests itself only at the site of infection or in the area immediately surrounding it. The general disturbances are but very slight. Young cattle are the most susceptible to it.

As a rule, the infection is conveyed to healthy herds by the hands of a vaccinated person doing the milking. It is sometimes transmitted from cows to those milking them; however, contaminated straw, hay, and stables also play an important part. It is very likely that true human smallpox may be transmitted to cattle, still, this has not been proven. An attack of the disease usually is noticed in four to seven days after infection, and the slight febrile symptom even may pass unnoticed. The appetite is slightly impaired; the udder of the animal is sensitive and the teats are abnormally warm and slightly swollen. In two or three days more, there appear on the teats and the udder small, hard nodules, changing in a day or two to small vesicles filled with lymph. The color of these vesicles depends upon the thickness of the skin and its own color; but, from the eighth to the eleventh day, they show in their centers a well-developed depression. The contents of the vesicles then become purulent and on drying, form scabs. Ordinarily, vesicles are few in number, not to exceed fifteen or twenty. Because of the milking and other traumatic influences, the course of the disease is greatly changed, and the area where the scab has dropped off may become infected; for this reason it may take from thirty to forty days before these vesicles are healed.

The cowpox-lymph, as used for protective vaccination against true smallpox, has become commercially so reliable that many countries have passed laws compelling everybody to be vaccinated, in order to avoid true smallpox that is so fatal to the human family.

Foot-and-Mouth Disease

Foot-and-mouth disease—or aphthous fever, as it is also called—is an acute infectious and contagious disease of the cloven-footed animals. In some rare cases, horses, dogs, cats, and even poultry are said to have been affected with it. The large herbivorous animals are susceptible, including camels, elephants, and the like. It also is transmissible to man; however, this infection takes place, as a rule, through the use of the milk and then rarely is fatal, although, in some outbreaks, several deaths have been attributed to it.

The germ causing this disease has not as yet been discovered, but, is classed with what are known as the ultramicroscopic filterable viruses. The virus has been known to retain its virulence for a long time in stables and manure piles and in and on the bodies of animals that have previously been affected. It sometimes

will retain its virulence in hay, fodder, and grain.

This virus is carried in many ways and much easier than is the virus of the ordinary infectious diseases. It is most surely carried by infected animals from one to the other, or on the boots and clothing of persons; also by the small animals, such as house-pets and the smaller wild animals, as also by hay, grain, straw and fodders.

It is a supposition among the lay people that animals attacked with foot-and-mouth disease are immune to it after having recovered; still, experience has shown that this is not so, but, that an animal may subsequently be affected after a few weeks and as many as two or three times within a year. The herd seemingly may recover and then, after several weeks, the disease breaks out again. Animals have been known to transmit the infection as long as two years after they have recovered from it. On account of these virus-carriers, it is dangerous and unprofitable to attempt to control this disease by means of quarantine alone. Following the outbreak of 1902 and 1903, some herds in the eastern part of the United States were not slaughtered, as they seemingly had recovered; but, these cattle afterward did so poorly that the Bureau of Animal Industry of the United States Department of Agriculture was requested to destroy them. It is impossible properly to disinfect premises as long as the diseased cattle are upon them, for which reason it is advisable to kill them.

It may be well to mention here that at times a malignant type of this disease makes its appearance, when the mortality is very high.

The period of incubation is variable, in most cases, though, it is from two to five days, and may be as short as one day or as long as ten or twelve days.

The infection mostly is conveyed to man by the use of raw milk, while in rare cases it may also be transmitted to infants, and these occasionally prove fatal. The first symptom that is noticed is, a mild fever, followed by a feeling of dryness and warmth in the mouth, and this may be followed by vomiting; the mucous membrane lining the mouth and lips become reddened, after which the formation of vesicles takes place, and these soon burst and leave a raw, denuded surface. In addition, there may occur headache, dizziness, diarrhea, and general depression.

Rabies (Lyssa)

This condition is also known as hydrophobia or canine madness. It is an acute contagious and infectious disease of dogs and cats, and of foxes and wolves, and also of the herbivorous animals in general, which latter usually contract the disease from being bitten by dogs. It nearly always results in death. Since the discovery of a specific treatment, by Pasteur, the mortality has been very low, indeed. The infective agent is one of the filterable ultramicroscopic viruses and has so far remained hidden to the army of scientists that have labored to discover the effective cause.

Rabies is found the world over, but, there are a few countries now that have been free from it for several years. Among these, are England, Denmark, Norway and Sweden. So far, it has been impossible to isolate and cultivate the microorganisms on any artificial culture-medium, whence it may be supposed that it grows only in living tissues.

The finding, by Negri, in 1903, of those cell-inclusions in the large ganglion-cells of the hippocampus major and of the cells of Purkinje, in the ganglion-cells of the cortex of the cerebrum, the pons, and the medulla, and sometimes in the spinal cord, has made the diagnosis of this condition fairly reliable and accurate.

The natural infection is brought about, usually, by the animal or man being bitten by an affected animal, the virulent saliva being introduced into the wound and the injured tissues and nerves. It is maintained by good authorities that the saliva may be infectious as long as eight days before the appearance of the first symptoms of the disease.

The danger from a bite is in proportion to the extent of the injury and also the depth, the amount of clothing that is worn or the thickness of the hair of animals over the wound, as also the character of the teeth of the animal that inflicted the bite. Cats and dogs make a much worse wound than do some of the other animals. A deep wound made with sharp teeth does not bleed out very well, and, so, it is very difficult to get rid of the infection. About 30 percent of animals bitten by a rabid

animal will contract the disease, while cattle and sheep may run as high as 50 to 80 percent.

After gaining access to the body, the virus finds itself along a nerve-tract, and in this way brings about the peculiar train of symptoms that are observed in this condition. It is thought that, where the condition hangs on for several days after the virus has reached the central nervous system and the spinal cord, it may, in time, pass to the nerves of the opposite side of the body.

The length of the period of incubation of rabies seems to be longer than for almost any other disease, while also seeming to be as variable, according to the opinion of different authorities: The period of incubation is given as from two weeks to about two years. It is more than likely that, ordinarily, you will observe, in most cases, that this disease develops in from two to eight weeks after the bite of a rabid animal; very long periods of incubation may occur in a few instances, but, after several months have elapsed, there is a very good chance for reinfection from some source that may have escaped detection.

In dogs, we very often find, in the beginning of these attacks, that the animal becomes melancholy and does not obey its master as willingly as before and will crawl away into some dark place and remain hidden. It even may scratch the floor and seem to be excited from some imaginary cause. At this time, there will be noticeable some difficulty in swallowing, and the animal is unable to drink much and sometimes has difficulty in voiding urine and feces. The free flow of saliva usually is very noticeable at this time. In short, the animal's disposition seems to be changed almost completely during this stage of the attack.

In from one-half to three days the stage of excitement sets in. The behavior of the animal is greatly changed. It becomes very restless, and, if in a room or kennel, it will make every effort to get outside. It will suddenly become aggressive and will fight every other dog to which it can get, and will attack other species of animals if it can get loose. Usually, it will wander off on a long trip at this time fighting with every dog encountered. The dog will not attack persons, unless they get in its way. The throat is wellnigh paralyzed at this time and the animal can drink little or not at all. When the rabid dog is fighting with other dogs, it may be noticed that the other dog is howling, while the rabid dog utters scarcely any sound at all; or, if any, it is a sort of coarse, hoarse growl. The bark of dogs at this stage of the disease has a peculiar sound, caused by the paralysis of the muscles and nerves of the throat. It is somewhat of a double sound and is accompanied by long, drawnout howls. After one becomes familiar with this bark, he many times is able to suspect a case of rabies merely from hearing the sick dog bark. At this stage, the dog will not try either to eat or drink. Some animals even tear the flesh from their own bodies and especially from the seat of the injury. This stage of excitement lasts between three and four days, and is then followed by the stage of paralysis.

The paralysis and the periods of depression become more pronounced, and the lower jaw becomes paralyzed, the tongue protrudes from the mouth, paralyzed, and the saliva runs from the mouth in long strings. The nerves of the other parts of the body rapidly become affected. The hind-legs become involved, the animal staggers, and eventually is unable to walk. At this time, the animal may attempt to drag itself around with its front feet, but, very soon this becomes impossible, and it lies helpless. Death usually occurs in convulsions.

There is a great variation in the clinical picture of rabies and the stages do not always occur in the same order.

Cats frequently are affected by this same condition; horses also are subject to it, as are also cattle, sheep, goats, and swine.

The disease ordinarily runs its course in from three to thirteen days; most of the cases ending in from four to seven days. Recovery is very rare, still, it has been observed.

When people have been bitten, it is best to keep the animal under observation until it dies a natural death rather than to kill it. If one has the opportunity of observing the animal through the greater part of the disease, he will be able to arrive pretty closely at a correct diagnosis. If one is at all uncertain, it is best to have a microscopic examination made. Diagnostic-inoculation also may be made with

other animals, and this is a reasonably reliable way after one has had the necessary experience in this kind of work.

By ridding the country of all ownerless and straying dogs, and having in force compulsory muzzling-acts and by quarantining all suspicious cases for at least three months and destroying all known and suspected infected animals, it is possible eventually to eradicate this scourge.

A person affected with rabies will first experience itching and trembling in the bitten part, and also some fever, respiratory troubles, difficulty in swallowing increased salivation, reflex excitability, and delirium. These are followed by paralysis of the muscles of the throat and tongue, followed by those of the muscles of the extremities. Since the introduction of the antirabies-vaccination of Pasteur, the mortality has been reduced to less than 1 percent, being most favorable in bites about the limbs, and more dangerous for those about the face and head. The earlier the vaccinations are begun, the better. It is now possible to apply this treatment to horses and dogs.

Glanders

This disease is known also as farcy or malleus. It is a contagious and mostly chronic disease of horses. Man will become affected from contact with the virus. It is characterized by the formation of nodules, which degenerate and give rise to characteristic ulcers.

Glanders has been known from the earliest time and was very prevalent in nearly every part of the world; however, since the introduction of mallein as a means of diagnosing this condition, this has made possible the control of the disease in many of the countries.

The disease is caused by the bacillus mallei. Cats and dogs, and sometimes sheep, goats, and swine can be artificially infected, while cattle are virtually immune.

Ordinarily, the disease is acquired through contact with the secretions of the animals. The bacillus often is found only in those organs, and their secretions, that are affected, such as the kidneys, in which latter case the feces would be infectious. The secretions from the nose and from the ulcers are very infectious. The bacilli will maintain their virulence for some time, it lodged in a dark, damp place and protected against drying. Most animals become infected from feeding from the same trough or from the same feed-boxes near which glandered horses have been. The disease is contracted especially through the feed and water of the animal, and it usually is introduced into uninfected stables by a diseased new or strange horse. By the aid of the mallein-test, cases of glanders may now be detected where no clinical suspicion of the disease exists.

There are several methods by which this condition may be diagnosed; the principal, and best being the mallein-test. However, it can be discovered by microscopic examination, cultures, animal-inoculations, complement-fixation test, et cetera. The ophthalmic mallein-test is the one that is being the most widely employed just at present. It has the advantage of not interfering with the subcutaneous mallein-test, if the ophthalmic test is not satisfactory.

No treatment is attempted in these conditions, but, the animals should be isolated and destroyed at once and the other members of the stable be quarantined, while the stable and all the harness and blankets used about the diseased animals should be destroyed or thoroughly disinfected. Quarantined animals should be kept under observation for some time and should be repeatedly subjected to the test at proper intervals, so as effectually to stamp out this malady.

In man, glanders usually occurs most frequently when the infection gains access directly into the lymph-glands or vessels or into the submucous or the subcutaneous tissues or, finally, directly into the blood stream.

It may develop into an acute or a chronic type. When it is acute, there usually will be found a small nodule at the point of infection and the surrounding tissues will become edematous and the afferent lymph-vessels will be swollen and painful. The nodules frequently develop into ulcers and extend over large areas of the body. The disease may affect the mucous membrane of the nostrils, and a catarrhal discharge may be present—an affection of the larynx and lungs. Chills and fever, as also muscular and articular pains are manifested at this time; cough as well as difficult respiration and deglutition indicate affection of the larynx and the lungs.

Death usually supervenes in from two to six weeks.

In the intestinal form, glanders simulates typhoid fever; but, the continuance of the fever beyond the third week and the appearance of pustules over the body makes the differential diagnosis possible.

In the chronic cases, the victims have the nodules and ulcers, and these often heal and then break out again after several weeks or months, and these patients many times will recover completely. The condition may become acute, however, and end in death in a short time. Still it has been known to persist for as long as eleven years in human beings.

Tuberculosis

We have come to that condition that interests us more from the standpoint that we are occupying in discussing these diseases at this time. Tuberculosis has received more consideration at the hands of great medical men and bacteriologists of the world than have all other diseases combined. Vast sums of money are being spent each year in studying tuberculosis and the means to prevent as much of it as possible. Almost every paper that one picks up contains something appertaining to the "great white plague," either about some cure or some sanatorium or some martyr to its ravages. It is a disease that is dreaded by all, owing to its slow insidious, but, certain death, and to the suffering that is sure to ensue during its progress. It is not a respecter of persons, but, we do know that people that live under unsanitary conditions and are poorly fed and clothed, and that are compelled to do work for which they are physically unfit are very good subjects for this dreaded malady.

Tuberculosis is a disease that has been demonstrated to obtain in almost, if not every, species of animal that inhabit the globe. It is one of the oldest diseases of cattle as well as of human beings. It has been recognized for centuries; although the cause of the condition has been known only for a few years.

Tuberculosis is more common among the cattle of this country than most people are aware. It becomes disseminated by the buying and selling of cattle and moving them from one place to another. This traffic in diseased cattle or, in other words, in tuberculous cattle, has been going on among some unscrupulous dealers for several years and ultimately has become so great a menace to the cattle industry that many states have placed a quarantine against dairy-cattle from these known badly infected districts. These cattle have been subjected to the tuberculin-test and have reacted, and then have been sold under fales tuberculin-test certificates issued by unscrupulous veterinarians and also by some dealers.

It has been a disputed point for several years among the scientists, as to what relation the tubercle-bacillus that produced the condition in cattle and the one that produces the condition in humans really bear to each other; and it now seems to be the opinion of many of the great medical men that the bovine type can, and, in some instances, does affect human beings. It is a fact conceded by many doctors of note that a large percentage of the cases of tuberculosis in infants are consequent upon the bovine type of the bacillus, which are ingested with the milk from tuberculous cows. It is more than likely that each year in the United States several hundred infants die from tuberculosis from the use of tuberculous cows'-milk.

It does seem to me that wide-awake, intelligent people such as we have in the United States would demand competent and thorough inspection of the milk, especially that which is being used for infant feeding. The poor of our cities who must bottle-feed their babies can not help themselves, as they are not in a position financially to procure a milk that they are sure is free from contamination and disease-germs of various kind It is claimed that the death rate for babies whose fathers earn less than $10.00 per week is 258 per 1,000, while the death rate for those babies whose fathers earn $25.00 or more per week is 84 per 1,000. If this is true—and I personally do not doubt the correctness of it—it seems that many of us could find plenty of opportunity for our surplus energy in making an effort to bring about a better condition for our people and especially for the babies of our larger cities.

It seems, since it has been demonstrated that it is an easy matter to detect tuberculosis in cattle by applying the tuberculin-test, that we owe it to our people to do all within our power to see to it that as many of our cattle as possible are free

from the disease, especially those that yield the milk for human consumption.

I have not attempted to say anything extended concerning tuberculosis in animals and its transmission to man, because I feel that tuberculosis has received so much thought and investigation at the hands of the medical men that they, as a rule, are very well acquainted with the condition, and, besides, any description worthy of the name would occupy too much space for this paper.

Hypothyroidism Cured With Thyroid Therapy

An Interesting Case

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PATIENT: Mrs. J. N. T., of Hoschton, Georgia, housewife, age 52, married, weight 240 pounds. When asked her chief complaint, she replied: "Doctor, everything is wrong with me. My head aches, my appetite is poor, I cough up blood, I do not sleep well, my heart flutters, I am constipated, I can not get out of bed without help or walk without two people holding me up, and I get fatter and fatter every day."

Family history: Father died, at 78, from an accident; mother is living and in fair health, aged 89; four brothers are living and well; two brothers are dead, one from typhoid fever, at 35, one from Bright's disease, at 56; four sisters are living and in good health, except one, who suffers from occasional attacks of asthma; one sister died, at 45, incidental to the climacteric. Cases of tuberculosis, malignancy, diabetes, arthritis, pellagra, acute rheumatic fever, and nervous and mental diseases are denied to have occurred.

Patient's past history: Born and reared in north-eastern Georgia; always had been unusually active and enjoyed splendid health until the present illness began 27 years ago. Measles, whooping-cough, scarlet-fever and chicken-pox were her only childhood diseases; recovery from all was complete, without any complications or sequels. Other diseases of any kind, operations, and accidents are denied. Patient has been married 29 years. Husband is living and in fine health; has one child, aged 27, and healthy; also one grandchild, aged 4, and healthy; had no miscarriages. Her menstrual history is negative. The menopause occurred six years ago.

Present illness: This dates from the birth of her child 27 years ago, at which time she was confined to bed for one month with "childbed-fever"; never since having regained her former health. Her weight previous up to that time was around 150 pounds; but, since then she has never been strong and has gradually been gaining weight and losing strength, until at present she is practically helpless and very weak. She has done no housework for a number of years, been unable to wear a corset for the past fifteen years, can not sit down in an ordinary chair (because of her bodily bulkiness), has spells of despondency, passes blood from the rectum, can not eat solid food, owing to the looseness of her teeth, has indefinite pains throughout the body, and complains of all the things mentioned already.

Habits: She has nycturia (2 or 3), does not sleep well, uses neither coffee, tea or drugs. She eats regularly, although her appetite is not good and she is constipated. She worries a great deal. The environment is an excellent one and her standing, socially, the highest.

Physical examination: The patient is an unusually large woman presenting an apathetic look and having a bloated appearance; movements are slow and awkward her speech is slow and indistinct. She is lying propped up in bed, being troubled

with a slight dyspnea. Her hair is dark, dry, thin, and brittle. The skull is symmetrical and well developed. There are no nodes. The scalp exhibits nothing abnormal.

Facies: The woman's physiognomy is remarkably altered; the skin has a yellowish tinge, is rough, scaly, and dry, and the lines of the facial expression are completely obliterated, thus giving rise to a puffy, bloated, masklike expression of the face. The lips are thick and everted; teeth are carious and loose, alveolar pyorrhea being marked; the gums bleed when touched; the breath is foul; the mucous membranes are pale; the tongue is furred, protrudes in midline, completely fills the buccal cavity, and it shows the indentations of the teeth. The papillæ of the tongue are hypertrophic. The voice is harsh and barely rises above a whisper. The pharynx seems normal. The temperature is 97.4° F.

Eyes: The pupils, regular, react to light, and accommodate properly. There is no limitation of the movements of the eyeball. The field of vision is somewhat contracted. The palpebral apertures are about two-thirds closed, thus giving a sleepy, dreamy appearance to the eyes. The conjunctivæ are pale and injected. The eyelashes and eyebrows are intact, but, thin. There is a slight gross disturbance of the vision.

Ears: Gross examination discloses nothing unusual, although hearing is somewhat impaired.

Nose: This is large, broad, and thick, giving to the features a very coarse look.

Neck: The thyroid gland is not palpable. There are no palpable glands, nor is there any throbbing or stiffness. There is, though, a marked swelling of the subcutaneous tissues, which hang down in great folds anteriorly.

Thorax: The thorax is symmetrical, well developed, and very large. Expansion is limited bilaterally. The intercostal spaces are obliterated by a firm, inelastic swelling, which does not pit on pressure. The respirations are 24 per minute, rhythmical, but, slightly labored. There are great masses of fat in the supraclavicular regions and over the cervical vertebræ. Cardiac dulness is slightly increased in all diameters. The apex-beat is somewhat diffuse, but the point of maximal impulse is located in the sixth intercostal space 1 Cm. outside the midclavicular line. The sounds are indistinct, but no murmurs are audible. There appears to be an accentuation of the aortic second sound. There is slight arrhythmia. The lungs are clear, except for a few fine moist râles at both bases posteriorly.

Abdomen: It is protruding and tympanitic. No masses, rigidity or tenderness are encountered upon palpation, which latter is markedly interfered with because of an enormous thickening of the abdominal walls. Hepatic dulness is increased several Cm. in the vertical diameter, but, not felt below the costal margin. I can not palpate the spleen.

Extremities: The skin is dry, rough, and scaly. Joint movements are limited. The hands are broad and relatively short and their backs are markedly hyperplastic in comparison with the palms. The patient can not close her fists while the grip is extremely weak. The radial pulse runs 65 per minute and is arrhythmic. The systolic blood pressure equals 165 mm. of the mercurial column. The epitrochlear glands are not palpable. The lower legs present a dense, inelastic swelling which does not pit upon pressure, except around the ankles, where there is slight pitting. Locomotion is impossible without the aid of two assistants. The slightest exertion causes dyspnea.

Mental state: Mental hebetude marked. Memory for remote events is good; for recent events, it is defective and inaccurate. Patient is despondent, suspicious, irritable.

Reflexes: These apparently are normal, but the sensations are dulled.

Laboratory findings: Sputum, negative for tuberculosis. Blood, negative for plasmodia. (This is a malarial district). Erythrocytes, 3,100,000; leukocytes, 5,800. Polymorphonuclears 53 percent. Small mononuclears, 27 percent. Large mononuclears, 12 percent. Transitionals, 1 percent. Eosinophiles, 2 percent.

Feces: Negative for parasites or ova; positive for blood.

Urine: 800 mils, acid, clear, amber-colored, trace of indican, albumin present. Sugar, none. Many hyaline and granular casts.

Diagnosis: Hypothyroidism (myxedema).

Treatment: Daily warm baths were given. The patient was placed upon thy-

roid extract, 0.10 Gram three times a day for a period of one week, at the end of which time the dose was increased to 0.25 Gram three times a day. She lost 10 pounds at the end of second week. During third week dose increased to 0.3 Gram three times a day and a high-protein diet was prescribed. During the fourth week the dose was increased to 0.40 Gram. During this week, symptoms of thyroidism (tachycardia, sweating, nervousness, and so forth) developed, whereupon the drug was stopped for a period of one week. An attack of fainting ushered in the symptoms of thyroidism. At the end of the week of rest (from the extract), she was given 0.10 Gram three times a day, and this dose was steadily maintained. At the end of the 25th week, she weighed 175 pounds (a loss of 65 pounds), and now is feeling perfectly healthy. She walks like a normal individual, does her housework and handwork, has a good appetite, is cheerful, takes prolonged rides, sleeps soundly (free from nycturia), complains of no cough, nor headache, nor weakness, nor dyspnea; eyesight and hearing are improved; wears a corset, speaks perfectly and distinctly, and says that "the past seems like a dream" and that she "feels as though she were but sixteen years old," complaining of nothing whatever.

Her white- and red-cell counts are virtually normal and hemoglobin registers 90 percent. The urine still shows a trace of albumin with few hyaline and granular casts, but, is free from indican; systolic pressure equals 160 mm. Hg., the cardiac sounds are distinct and regular. She eats solid food (her teeth no longer being loose), and her mental condition seems virtually normal.

The melena was caused by hemorrhoids.

Note on the Possibility of Nonvenereal Contraction of Gonorrhea

By G. FRANK LYDSTON, Chicago, Illinois

APROPOS of the method of contagion in gonorrhea, considerable illogical reasoning has been indulged in regarding the possibility of infection in an innocent manner. Syphilis *insontium* is well recognized; but, whenever an individual having gonorrhea gives a history of an unknown or innocent source of infection, the account ususally is treated with lofty disdain and contempt, born of a profound knowledge of human nature—particularly as manifested in connection with venereal diseases.

Theoretically, at least, gonorrhea is more likely to be contracted innocently than is syphilis. Limitation of innocent infection is owing to the fact that the structures susceptible to gonorrhea are of comparatively small area and relatively inaccessible, whereas, in the case of syphilis, any abraded surface serves as a port of entry for the germ. Given, however, the contact of the genital mucous membrane with the gonococcus, infection occurs much more readily than in syphilis, which latter requires an abrasion—an *atrium*—as the essential requisite for infection.

Gonorrhea depends upon a very virulent germ—or, even laying the germ-etiology aside for the moment and accepting the broad proposition that gonorrhea affords a secretion that is extremely virulent—it only remains to show that facilities for the innocent conveyance of the disease are frequent, in order to substantiate the proposition that gonorrhea may be contracted innocently.

The "water-closet" theory of the origin of gonorrhea has received much ridicule, yet, the author believes that, if logically considered, this theory will not appear quite so absurd as it does at first sight. It is a practical impossiblity for careless individuals having a profuse gonorrheal discharge to use the public closets found in saloons and hotels, without depositing more or less of the virulent discharge. The purulent meatus is rubbed over the closet-seat so as to deposit more or less secretion, unless the patient be unusually

careful. The next person using the closet, unless extremely cautious, brings his urinary meatus in contact with the infected surface.

Is the belief, that gonorrhea-infection may occasionally occur in this manner, illogical? We are too prone to question the patient's veracity. Ridicule hardly is a safe argument in a question that can be reasoned upon as logically as can other infections. This is important from a medico-legal standpoint. Expert testimony to the effect that no individual could, possibly, have contracted gonorrhea in the innocent manner above described must, certainly, depart from the ordinary manner of logic. However profound his knowledge of infection in other directions, the expert so testifying must, necessarily, manifest the densest ignorance of sound pathologic and bacteriologic principles. He certainly could not sustain himself under clever cross examination. The same argument is pertinent, although perhaps not equally so, as applied to the possible innocent infection of women, in whom a contagion through the medium of flies probably is more frequent than generally is believed.

The author is well aware that the views herein expressed are likely to be received with derision, still, as already stated, ridicule upon a question so open to logical reasoning as that under consideration hardly is worthy of respect.

The possible forensic application of the author's views has received due consideration, but, has in nowise shaken his conviction.

After Thirty Years—XI

Notes and Reflections on Life and Work

By WILLIAM RITTENHOUSE, M. D., Chicago, Ill.

[*Continued from February issue, page 119*]

Nonprofessional Culture

EVERY man ought to know something about everything, and everything about something. Or, to put it less epigrammatically and more clearly, every man should strive to be an expert in his chosen field; but, he also ought to have a reasonable grasp of every branch of human knowledge, sufficient to enable him to appreciate and feel an intelligent interest in the progress that science is making in revolutionizing the world. Especially does this duty rest upon the medical profession, for more than one reason. It is, in the first place, one of the three "learned professions", as medicine, law, and divinity have been called from time immemorial. In the second place, it comes very close to the people in the influence it exerts upon them, and especially upon the rising generation, to many of whom it consitutes the chief stimulating influence toward whatever culture may come into their respective lives. This is particularly true in country and village life, where the family physician still is looked upon with an affectionate respect and veneration approaching hero-worship. The family physician who is also a cultured gentleman and a man of science has, by his influence, done more to stimulate young men to make something of themselves than is generally believed.

The great mass of mankind live far beneath their privileges. Their lives are unnecessarily bare and barren. Their enjoyment of life is far below what it might and ought to be, were they to take a scientific interest in some field of human knowledge. We are all familiar with the type of business man that takes no interest in anything outside of business and moneymaking and who prides himself upon being intensely "practical", by which he means that no knowledge is of value unless it contributes directly to his financial success in business. If he studied pure science when he attended school or college, he looks back upon that experience and speaks of it as "wasted time". He says, "I studied geometry at school, and what good has it ever done me? I could not now demonstrate a single proposition of Euclid." As if that were what he studied it for! He looks with goodnatured contempt upon his

friend that is interested in geology or in botany and regards him as a harmless "nut".

In the course of time, this man feels that he has made money enough and decides to retire from active business and to "enjoy himself for the rest of his days", as he expresses it. But, alas! he has no mental equipment to enable him to enjoy himself. Business was the only thing that interested him, and now, that that is gone, he is like a fish out of water. Perhaps he decides to travel. But, the things that make travel a delight to the cultivated mind mean little or nothing to him.

A few years ago, in returning from the Pacific Coast, I spent four days in the same car with one of these pitiful poverty-stricken rich men. This man told me that he had lived in Boston (think of it!) all his life, had accumulated all the money he wanted and had retired from business, to spend the rest of his life "having a good time". He said that he had tried every form of amusement that he could think of, but, soon grew tired of them. He had tried loafing, but that soon palled upon him. He had tried travel. California had pleased him for a time, however, after he had seen all the regulation "sights" that tourists are expected to see, he was again back to the old problem of what to do with his time. The railway journey across the continent was a terrible bore to him. He spent his time reading a cheap novel so trashy that I will not advertise it by naming it. To most of the passengers, the desert, the mountains, and the plains were so full of interesting things that we felt sorry that some of it was passed in the night. I tried to arouse this fellow's interest in the wonderful geology of the region through which we were passing, but, with very little success. The painted desert, the petrified forests, the extinct volcanoes did arouse a fleeting interest in his mind, only to culminate in this confession: "I have no doubt, doctor, that all this is very interesting to you who understand these things, because you studied them when you were younger; but, then, I never learned anything but just business, I am sorry to say. I now see how foolish I was, however, it is too late to correct my mistake—too late. I am too old to begin the study of that sort of thing." (And he was in the early fifties!) I assured him that, really, he was at just the right age to begin and that his business-trained mind would enable him to learn rapidly any subject that he might undertake. This shriveled soul's interest was aroused sufficiently so that he made a note of a list of books on the geology of the west and expressed his intention of making another trip over the region, in order to see whether he could not learn something worth while. I assured him that, if he would look at nature with inquiring eyes, always keeping before him the thought, "How did all this come about? What does it all mean?" he never would be at a loss for a way of passing his time.

The medical profession at all times has produced some men that have interested themselves in scientific study outside of their professional work, still, their number is altogether too small. Every doctor should interest himself in some branch of science outside of medicine, not only because his own pleasure in life is vastly increased thereby, but, also, because his influence in the community will be enhanced, while the young people, who look up to him as a pattern, are stimulated in a direction most important to themselves.

In this country, we have lagged behind somewhat in this matter, mainly because we have not insisted upon a sufficiently broad foundation upon which to build a medical education. We have allowed students to enter upon the study of medicine whose general education was lamentably deficient. In Canada and most European countries, a broad and thorough college-education is required before the student is permitted to begin the study of medicine. The man who enters upon a medical course without a thorough general education is hampered, not merely by finding his college-work unnecessarily hard, but, if he ever does get through, his work as a physician is liable to be of a low grade and he is not likely ever to confer distinction upon the profession by achievements in the field of pure science.

Despite the many obstacles, gratifying signs are becoming evident that in the medical profession in this country there is an increasing number of men and women that are devoting themselves to scientific research in fields not directly connected with "shop". I can not refrain from mentioning at least two instances in which Chicago physicians have, in this manner, conferred

honor upon our profession as also upon themselves.

As For Good English

The articles on the English language now appearing in CLINICAL MEDICINE, from the pen of Dr. George F. Butler, are a credit both to the Doctor and to the magazine. They bear evidence of a degree of scholarly research that is all the more gratifying because it is so rare. The need of a better appreciation of "English undefiled" is very evident, not alone in the medical profession, but, in every field of literary production today. The language employed in our newspapers and magazines, while generally excellent in style and syntax, is, nevertheless, too often marred by a sloven grammar. It makes one long for a crusade for encouraging pure English. Thus, some two years ago, I was humiliated when a dry-goods clerk (sic!) pointed out to me, in the text of a circular issued by the A. M. A., this sentence: "The steamer will lay at the dock during the meeting." Facetiously remarking that that ought to make eggs cheap, he added: "This from one of the *learned* professions!" I have observed this same misuse of the transitive verb "lay" for the intransitive "lie" in at least three of our leading scientific magazines, while the expressions "none was" "prone on his back", and "everyone enjoyed themselves", and "I will go" (futurity) and "shall he go?" (futurity) are so common that it is difficult to persuade some people that they are ungrammatical.

The fault lies in the way in which grammar is being taught today in our schools and colleges. We have, indeed, fads enough in medicine, but, they do not compare with the fads prevailing in our system of education. The methods of teaching grammar that have stood the test of time for generations have, unfortunately, been abandoned. As, for instance, the desire to make things more easy for the pupil has done away with parsing; but, parsing is the best test yet devised for finding out whether a pupil understands what he reads, and for fixing in his mind the rules of grammar, without a thorough understanding of which he is like a rudderless ship when he wants to express himself in good English.

The most scholarly and scientific exposition of the psychology of the Great War, of the causes of the war itself and of the amazing revelations anent the character of the German people brought out by it comes from the pen of a Chicago physician, Dr. William S. Sadler. In his book, "Long Heads and Round Heads: or What is the Matter with Germany?", the Doctor draws from well-established ethnological facts an explanation of the astounding barbarities that have alienated from Germany the sympathies of the civilized world.

In older nations, such as Great Britain, for instance, there are plenty of men in the medical profession whose inherited wealth frees them from the necessity of devoting all their time and effort to earning a living, and it is gratifying that so many of them have done their part in the advancement of pure science. In America, as in all comparatively new countries, the great majority of doctors are busy earning a living, and those that have accomplished things on the side have not done so because of the leisure that comes with inherited wealth, but, because of the energy that overcomes all obstacles and finds time even in the busiest life to act upon the principle that we do not live by bread alone.

The Moral of It All

This brings me to the kernel of the whole matter, the object that I had in view in planning this article, namely, that the busiest doctor can find time, if only he will, to do something more than just be a doctor. No life that ever was lived was a better proof of this than that of the man Theodore Roosevelt, who has just passed away and whose death is an international loss. Roosevelt was a physical weakling in his boyhood, but, by sheer will-power, he carried out the outdoor life and the physical exercise that made him a marvel of endurance, so that, during a public career of prodigious activity, he found time to write more books than some men find time to read. When he wrote upon a subject, he wrote from a broad and thorough knowledge, so that whatever he wrote always was worth reading. His "African Game Trails" is a hunting-story, but, is far more—it is a record of scientific observation on an astonishing number of subjects. When one considers the great variety of subjects upon which he was well informed, it seems a marvel how the man ever found time to acquire the knowledge, to say nothing of writing about it. The secret lay in the fact that he was a keen and accurate

observer, and still more in the fact that he never wasted any time, but, made use of the little fag-ends of spare time that most of us waste.

The famous "pig-skin library" which he carried with him (and read, too) on his hunting and exploring trips in Africa, South America, and elsewhere, is a selection characteristic of the man. The broad scope of the titles of these books is almost stunning to the average man. Space will not permit me to enumerate the full list of over seventy volumes; however, some idea of the wide field covered may be formed from the following: Shakespeare, Tom Sawyer, Spenser's Faerie Queen, the Bible, Alice in Wonderland, Scott's and Dickens' novels, Bret Harte, Euripides, Bunyan, Homer, Dante, Froissart, Goethe, Omar Khayyam, Longfellow; and, before he left Africa, he had sent out to him, to read on the way home, Don Quixote, Montaigne, Molière, Green's History of the English People, besides a few others. It makes one feel ashamed to think that one ever offered the excuse: "I haven't time".

The influence of such a man is tremendous. It can not be measured; but, it would be no exaggeration to say that Theodore Roosevelt has, to some extent, influenced millions of characters, while many have had their whole careers changed for the better.

The Doctor's Opportunity

Man is an imitative animal. We all are more or less following the lead of some one that we admire, while the vast majority of the human race are greatly inclined to hero-worship when the opportunity presents. We doctors do not always realize to what a degree the young people of our acquaintance look to us for guidance in the things that make for a fuller culture and a more intellectual life. If we did, we should do more to make ourselves what the community expects us to be, namely, the best-educated men in its midst.

The field of pure science is so large that it affords opportunities to suit every taste. For the man who loves outdoor life and prefers to combine physical and mental recreation, there are the natural sciences, such as botany, geology, and the various branches of zoology. Under the latter, the study of birds is a favorite and a most interesting one. Collecting and classifying insects is another interesting branch, and this field is so large that many limit themselves to one subdivision, such as butterflies or bugs. Our boys in France took a very lively interest in "cooties", although hardly for the pure pleasure of the pursuit.

Those whose tastes are inclined to literary pursuits, and, indeed, everybody during the months when outdoor study is not practicable, can find abundant enjoyment in languages, in the various branches of literature and history, or in the science of language itself, philology. Really, the latter is a most fascinating study. I used to imagine that it must be pretty dry; but, when, many years ago, on the advice of a friend, I bought a copy of "Earle's Philology of the English Tongue", I found it as fascinating as a novel. The amount of history that words carry in themselves is astoundingly interesting. In fact, we are deeply indebted to philology, ethnology, archeology, and paleontology for our knowledge of the past of this interesting old world, far more so than to written history, which often is inaccurate, either through the ignorance or prejudices of the recorder; while the evidences set forth by the sciences I have named is not tainted in that manner.

Of all the outdoor sciences, one of the easiest and most fascinating is that branch of geology known as glacial geology: the study of the traces left by the ice-age, when the frigid climate of Greenland reached as far south as the Ohio River, and an ice sheet hundreds of feet in thickness moved slowly over all the region of our northern and northeastern states. To study this subject, no equipment is needed, while every railway journey affords the happy opportunity. Astronomy is the only other science that brings the mind face to face with forces of such stupendous magnitude and irresistible power—such sublimity and grandeur.

[To be continued.]

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The Composition of Feces With Reference to Diagnosis

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THE feces are derived from four sources, namely: (1) the remnants of unabsorbed food; (2) the discharge of epithelium from the mucous membrane of the intestinal tract; (3) the remnants of the digestive fluids; and (4) the bacteria. They consist of the following elements:

1. The unchanged residue of animal or vegetable tissue used as food; namely: hairs, horny and elastic tissues, most of the cellulose, woody fiber, spiral vessels of vegetable cells, and gum.

2. Portions of digestible substances, especially when these have been taken in too large amount or when they have not been sufficiently broken up by chewing, portions of muscular fibers, ham, tendon, cartilage, particles of fat, coagulated albumen, vegetable cells from potatoes and other vegetables, raw starch, et cetera. All foods yield a certain amount of residue, as, for example, white bread, 3.7; rice, 4.1; flesh, 4.7; potatoes, 9.4; cabbage, 14.9; yellow turnip, 20.7 percent.

3. The decomposed products of bile-pigments, which do not now yield the Gmelin reaction (nitric-acid test), as well as the altered bile-acids. The reaction, however, may be obtained in pathological stools, especially in those of a given color: unaltered bilirubin, biliverdin, glycocholic and taurocholic acids occur in meconium.

4. Unchanged mucin and nuclein (the latter occasionally after a diet of bread), together with partly disintegrated cylindrical epithelium from the intestinal canal and occasionally drops of oil. Cholesterin is very rare—the less, the mucus is mixed with the feces and the lower, the part of the intestine from which it is derived.

5. After a milk-diet and also after a fatty diet, crystalline needles of calcium combined with fatty acids and chalk, soaps constantly occur, even in the sucklings, and even unchanged masses of casein and fat occur during a milk-cure.

6. Among the inorganic residues, soluble salts rarely occur in the feces, because they diffuse readily, among these being common salt and other alkali chlorides, the compounds of phosphoric acid and some of those of sulphuric acid. The insoluble compounds—of which ammonia-comagnesic, or triple, phosphate, neutral calcic phosphate, yellow-colored lime salts, calcium carbonate and magnesium phosphate are the chief forms. Some of these insoluble substances are derived from the food, such as lime from bones, and, in part, they are excreted after the food has been digested.

7. Products of bacterial action. These comprise the entire series of fatty acids, from acetic acid to palmitic acid, further, lactic acid, succinic acid, glutaric acid, leucin, tyrosin, hydroparacimaric acid, paraoxyphenylacetic acid, phenylpropionic acid, phenylacetic acid, phenol, paracusol, indol, skatol, skatol-carbonic acid, ammonium carbonate, ammonium sulphide, and conjugate glucuronates.

8. Water.

9. Gases, which are, in part, referable to the various fermentative and putrefactive processes that take place in the intestinal canal, such as carbon dioxide, methane, hydrogen, hydrogen sulphide, methylmercaptan, phosphin. The nitrogen, on the other hand, which also is constantly met with, is, probably, derived from the blood and has, in part, been swallowed.

Normal Feces.

For comparison, it is necessary to have something as a standard, and, as such, a fecal discharge from a condition approaching starvation might be taken. In such feces, there are no food residues, but, the other things are abundantly represented. Many analyses of feces have been made from those of persons who, for a period of several days, had consumed no food, and these give some idea of the character of the discharge that might be expected when the minimum of food is consumed, and no more. It has been calculated in this way that about 10 to 12 Grams

daily is the average normal discharge, from a man of 70 kilograms in weight, derived from sources other than the remains of food. Numerous attempts have been made to find the average composition of feces from a diet containing just enough protein, fat, and carbohydrate to keep the body in normal condition.

While the examination of the stool may be performed with a moderate degree of certainty on any form of diet, yet, owing to the variations that sometime occur, it is much more desirable that patients be placed upon a fixed diet for forty-eight hours before a specimen is taken. The best diet that has been adopted is that of Schmidt, which is as follows:

Breakfast: Half a liter of milk, and 50 Grams of crackers.

Lunch, mid-forenoon: Half a liter of oatmeal-gruel, consisting of 40 Grams of oatmeal, 10 Grams of butter, 200 Grams of milk, 300 Grams of water, and 1 egg, which is to be strained.

Dinner: 125 Grams of Hamburg steak, lightly cooked, 20 Grams of butter, 250 Grams of mashed potatoes, containing 10 Grams of butter and 100 Grams of milk.

Lunch, mid-afternoon: Of the same character as the breakfast.

Supper: Of the same nature as the mid-forenoon lunch.

Consistency and Form of the Feces

The consistency and the form of the feces are, principally, dependent upon the amount of water present, and vary for different animals. Generally speaking, they are softer in the herbivorous animals than in the carnivora. In man, they usually occur in the characteristic plastic cylindrical form, but, may, at times, be mushy or round and hard, even in health, under a mixed diet like that mentioned. They should be cylindrical in form and of moderate caliber. A semifluid stool may be normal if vegetables largely predominate, or, in vegetarians. Very liquid stools, unless produced by laxatives, are abnormal, as are very hard stools, made up of the so-called rabbit-form (scybalar), which indicates long delay of the feces in the colon and excessive absorption of it, including water. The lead-pencil or pellet form is not pathognomonic of intestinal stricture, but, rather, indicates a spastic condition of the colon; while a low-lying stricture of the latter may be accompanied by a normal stool.

Amount, Odor, and Color

The amount of fecal material that is eliminated within the twenty-four hours depends primarily upon the amount and the character of the food that has been ingested. In man, it normally varies between 100 and 200 Grams, but may diminish to 60 Grams or rise to 250 Grams, even in health, according to the preponderance of animal food or vegetable material that has entered into the diet.

The *disagreeable odor* of the feces largely results from indol and skatol, but, may be made worse by the presence of hydrogen sulphide, methane, and methylmercaptan.

The color varies with the character of the food ingested and ordinarily is but little influenced by the decomposition-products of biliary pigments. In carnivorous animals, the feces are almost black, owing to the presence of hematin and iron sulphide. In adult man, the color normally varies from light- to dark-brown. In infants, in which the bile-pigments appear as such, the feces are of a bright-yellow or greenish-yellow color. At times and apparently under normal conditions, there also are stools passed that are grayish-white in color and closely resemble the so-called alcoholic stools as observed in cases of biliary obstruction.

The stool may assume the color of blood, either unchanged or modified, as a result of its content of cacao-fragments or those of raspberries and blueberries, as well as iron or bismuth, simulating the "tarry" stools produced by hematin; and a differentiation can be made only by chemical means, when blood actually is present. The color of the stool depends upon the time the blood has remained in the intestinal tract; for instance, if the blood comes from the small intestine, the stool is brown to black, if from the lower colon or from hemorrhoids, it is a bright-red. If bile is absent from the intestine or if the fat is largely increased from other causes, the feces assume a clay color, although, if the fat be removed by ether, they often assume their normal color.

Macroscopic and Microscopic Examination

On macroscopic examination of the feces, we frequently find undigested particles of

food, such as skins of berries, large pieces of connective tissue, woody vegetable fiber, undigested pieces of apples, pears, potatoes, grains of corn, flakes of casein, and so on.

On microscopic examination, we usually find undigested bits of muscle-fiber, connective tissue of the white fibrous variety, the framework of vegetable matter, often starch still enclosed in cells, with granules, flakes of casein, globules of fat, fatty-acid needles, crystals of calcium oxalate, neutral calcium phosphate, ammoniomagnesium phosphate, calcium lactate (these are seen especially in children on a milk-diet), and, more rarely, of calcium carbonate, calcium sulphate, and cholesterin. We further meet with more or less disintegrated epithelial cells, a few leukocytes, bits of mucus, and, above all, the innumerable microorganisms. Often it appears as though the stools consisted of these exclusively; Sucksdorff estimated in his own person that, on an average 53,124,000,000 microbes were eliminated in the twenty-four hours.

General Chemical Composition

In adult man, the reaction of the stools mostly is alkaline, sometimes neutral, and but rarely acid. Acid stools, on the other hand, are the rule in infants.

A general idea of the average composition of the human feces may be gained from the following analyses, which are taken from Gautics, and have reference to 1000 parts, by weight, of the fresh material:

	Man	Suckling	
Water	744.00	871.3	parts
Solids	267.00	148.7	"
Total organic matter	208.75	137.1	"
Total Mineral matter, (not including earthy phosphates	10.95	13.6	"
Alimentary residue	84.00		"
The organic matter yielded:			
Aqueous extract	53.40	53.5	"
Alcoholic extract	41.65	8.2	"
tract	41.65	8.2	"
Ethereal extract	30.70	17.6	"

Diagnostic Value of Fecal Analysis

The diagnostic value of clinical analyses of the feces is, at present, not generally appreciated, doubtless partly, because methods convenient for the general practitioner have not been described as yet: Some of the points are:—Mucin—When this is found attached, in shreds, to the outside of the stool, it indicates presence of colitis, even when the stools are formed and there is absence of diarrhea. When minute particles are well mixed with the stool, colored with hydrobilirubin or bilirubin and studded with nuclei of epithelial cells, it indicates an inflammatory disturbance of the upper intestinal tract or small intestine. In general, the finer the particle, the farther the seat of the disease is from the anus; the more cells found embedded in these fragments, the greater is the intensity of the inflammation.

Modified and Unmodified Bilirubin

With reference to bilirubin these conditions may be present: First, after the bilirubin leaves the ileocecal valve, on account of the large number of bacteria, it may be converted wholly to stercobilin. This is a normal condition. Second, when bilirubin persist and is found attached to muscle-fibers, calcium soaps, et cetera, it indicates an increased motility of the small intestine, which does not allow reduction to take place; but, this may be brought about by the use of laxatives. Third, when meat-fibers show no coloring on the addition of mercuric chloride and are unacted upon by reagents, have only a very faint lemon-color or are colorless, it usually indicates a partial or complete closure of the biliary duct, and it is usually associated with a large amount of fat.

Fat.—The presence of a large amount of fat or soap crystals points either to insufficiency of bile secretion or to obstruction of the common duct, when the hydrobilirubin is likewise absent, or to a chronic catarrh of the small intestine, which also is accompanied by numerous muscle-fibers and mucin fragments. The presence of a larger amount of neutral fat, with which also may be associated muscle-fibers and free starch granules, points to insufficiency of the pancreatic juice, to which may be added either a normal stercobilin content or a deficiency, as disturbance of the bile flow is likely to be associated with that of the pancreatic juice.

Meat Fragments.—When a large number of connective-tissue fragments are found

in the feces, it points to a disturbance of gastric digestion, because the intestine has little or no power to digest this portion of the meat, leaving that to the stomach. This abnormality, is, as a rule, a hypochlohydria or achylia. This disturbance may be so great that practically all connective tissue taken may be found unchanged. This condition may also be owing to increased motility of the stomach, and, even when hypochlorhydria exists, to incomplete digestion because of an excess of the very medium in which it acts. When *a large amount of meat-fibers* are found, it points to defective intestinal digestion, confined, usually, to the duodenum. This disturbance may be defective pancreatic juice, when fibers usually are associated with fat and starch, or to increased peristalsis, by which time is not given to complete digestion, or to a delayed absorption. When both muscle-fibers and connective tissues are found, it points to a combined disturbance of the stomach and intestine, such as present in acute gastroenteritis.

Carbohydrate Fragments.—These are much rarer and point to disturbance of digestion in the small intestine, usually dependent upon an insufficient secretion of pancreatic juice.

Fermentation and Putrefaction.—The former means an excess of carbohydrate in the stool, which usually has a light, foamy appearance, and an acid reaction. When putrefaction is present, it means more than the mere presence of food remnants, which do not produce a pronounced effect; in fact it usually signifies a severe condition, such as an ulcer, pus breaking into the intestine, malignant disease, and the like.

Blood and Pus.—The former, when red and fresh, points to a disturbance in the lower colon or rectum (hemorrhoids), when tarry, to the small intestine or to hemorrhage in the stomach. Pus, when its form and nuclei are apparent, also must come from the lower colon and rectum for, if from a higher point, it usually is digested before being passed.

Austin says, regarding the pathological conditions, that little can be determined, for, he has had repeated opportunities to examine the stools of those suffering from malignant disease just above the rectum, (as determined by operation), tuberculous diseases and severe dysentery. No difference has ever been observed in the stools in these three conditions, all of which are accompanied by some discharge in which no food-remnants could be found.

Summary

1. Skatology is a subject that has been greatly neglected, for various reasons, especially because of lack of knowledge and of needed apparatus for bedside examination.
2. The subject has been more closely studied at the experimental agriculture stations, with regard to animals than to man.
3. There is a good field open for someone, to devise a small pocket-set, and reagents that can easily be understood and used at the bedside.
4. In talking with numerous physicians, they frankly admitted to me that it is a subject with which they are sadly unfamiliar and expressed the wish that there were available more definite literature upon the subject, as about all they can do at present, with the knowledge and apparatus at hand, is, to do as physicians of old did, namely, to look at the stools, and if light-colored, to give a dose of calomel, if dark-colored, a dose of podophyllin.

How Uncle Sam Cares for the American Soldier

Special Article

EDITORIAL COMMENT.—This special article was prepared from a large amount of information placed at our disposal, several months ago, by the office of the Quartermaster General of the Army. For this assistance, we desire to express our grateful appreciation.

NOT since the army has been in France has a single man had to wait a minute for a meal that was due." In these words Secretary of War Newton D. Baker, some months ago, summed up the accomplishments of the Quartermaster Corps in feeding the American Expeditionary Forces, he quoting from a cablegram received the same day from General Pershing.

In these days when wars are fought by nations rather than by armies, the problem of feeding the fighting man and still maintaining sufficient food supplies to support civilian populations is one of the greatest magnitude. It is true today, as in Napoleon's times, that "an army fights on its stomach." Brigadier General Robert E. Wood, the Acting Quartermaster General, stated this truth vividly when he said on the same occasion: "The army may lack aircraft and it may lack guns, but, when Private John Smith does not have enough food, blankets, and clothing or if he is not paid promptly, every relative of the aforesaid private immediately comes to the conclusion that the war is not being properly directed."

To feed the soldiers, is no cold-blooded business. It requires sympathy with the soldier and an insight into his past habits.

The food of the Army is secured through the Subsistence Division of the Quartermaster Corps, and it is the concern of this Division to put itself in the place of the soldier—to think and feel with him at his mess.

Careful study of the table of the average American family has given birth to the Army ration. No experiments are made on the American soldier. Every food must have been approved by the civilian population before being used in the Army. It is felt that the soldier is a normal human being and should not be a victim of theorists. A soldier prefers a stomach full of substantial food to a stomach full of calories and vitamines. However, food-experts are not forgotten, and care is taken to see to it that the meals are properly balanced. The average soldier has gained 12 pounds in weight since entering the service. This tells whether his food is nutritional or not.

There is nothing that brings quicker complaints from the soldier than dissatisfaction with his food supply. That the food not only is ample as to quantity, but, of good quality and well prepared, was attested to by Secretary Baker, who said: "From no camp, have I had a criticism that the food was insufficient, that it was unwholesome in its character, that it was not well cooked or did not arrive on time."

No restrictions are placed upon our soldiers' appetites, but, the highest care is exerted to prevent the soldier from taking more on his plate than he will eat; in other words, much of the food that was formerly lost through carelessness is now saved. The Reclamation Officer in every camp and every cantonment is responsible for the separating and the classifying of kitchen-waste that is produced in the preparation and serving of every meal at the mess. The object of this careful separation and classification of this kitchen waste is, to check up on wastage—to *prevent* wastage. The division of Conservation and Reclamation of the Quartermaster Corps, cooperating with the Food Division of the Medical Department, interests itself especially in the storage of food and in the reduction of waste.

The Ration of the Soldier

The ration of the American soldier consists of 27 articles that must be ready for him regularly every day. These 27 articles that go to make up the daily ration all together, weigh about 4½ pounds and cost about 45 cents.

The soldier gets liberal amounts of the most nutritious food. At present the Army is using around 1,250,000 pounds of

butter and 700,000 pounds of oleomargarine every month. In the United States, about five times more butter than oleomargarine is being used during this season.

During the summer, the quantity of butter available is very large, and, with prices accordingly low, it is the favorite for use. In winter, however, the high price of butter reduces the quantity used, and increases the quantity of oleomargarine, until the amount of each commodity consumed is about equal.

In France, where it is possible to procure butter from the local markets during the summer months, the quantities of butter and of oleomargarine used during the year are about equal. The Subsistence Division of the Quartermaster Corps is exceedingly strict in its requirements for butter supplied to the Army and exercises great care in inspection so that the highest quality only is supplied, both in this country and abroad.

The Subsistence Division of the Quartermaster Corps recently completed purchases of potatoes and onions for August requirements at the various camps and cantonments. The total amount of both commodities purchased equaled 27,527,500 pounds, which is, by far, the largest amount handled by the Potato and Onion Section since the central purchasing system was inaugurated.

During the first seven months of the year passed, the Army required 1,612,313 cases of evaporated milk. This number of cases is equivalent to 77,391,024 quarts of fresh milk, and it took approximately fifty milk-concerns to furnish this amount. Evaporated milk is an important element entering into the soldier's ration. It is even more important in France than in this country, for, there the rate of actual consumption by the American troops is four times the allowance specified in the Army ration. The Subsistence Division of the Quartermaster Corps exercises great care to see to it that the milk is in sterile condition and that it contains the required percentages of fats and solids when it reaches the soldiers. Every car of milk for the Army is inspected and chemical analysis made before being issued for consumption.

The American Army in France is getting good soft bread, made from pure wheat flour. Our troops in the United States have been getting the prescribed amount of substitutes in their bread, and it has proved satisfactory. Here, bakers are definitely located and can easily work out mixtures that will produce good bread. The daily ration for soldiers of the American Expeditionary Forces is 18 ounces of wheat flour for soft bread. This has proved to be more than enough, and a reduction to 16 ounces per day is now under consideration. The Army supply of flour at this time is abundant at every place along the line, from the mills to the battle lines in France. Every requirement for flour, both for domestic and overseas consumption, is met.

Sugar and Sweets

Since the Government has been handling the purchase of sugar, through the United States Food Administration (Sept. 1, 1917), approximately 200,000,000 pounds of it has been used by the Army. This amount is exclusive of the depots and camps on our West Coast, where they have been using raw sugar from Manila, having it refined locally. A conservative statement of the amount of sugar procured on the Pacific Coast is about 25,000,000 pounds, making the total purchase for the Army 225,000,000 pounds. It is found that about 237 pounds of sugar is consumed by 1,000 men at their meals in one day.

Approximately 75,000,000 cans of tomatoes were purchased by the Quartermaster Corps from the 1917 pack.

The prune occupies a most important place on the Army bill of fare. This place has been won by merit, for, it has been proven that the prune has value as food, as fruit, as a tonic, and as a confection. It has the high approval of the food-experts in the Subsistence Division of the Quartermaster Corps and it has been recommended by the Suregon General of the Army.

Out of the 1917 crop, the Army used 20,000,000 pounds of prunes. Based on size "55", this amounted to 1,100,000,000 prunes. In order that the Army may have its full prune supply, the requirements for a year are figured out in advance prior to the time the new crop is ready for harvest. This avoids delay and assures getting the size of prunes most suitable for its use.

Special attention has been paid to meeting the express wants of the soldiers. When they mention a desire for any particular article, pains are taken to supply them with it in adequate quantities and of the best quality.

Lemon-drops (the candy) are so popular in the Army that considerable difficulty has

been experienced by the Subsistence Division of the Quartermaster Corps in obtaining the quantity and quality desired. About 200,000 pounds of lemon-drops is used each month at the present time, constituting about 15 percent of the amount of candy furnished to the Army. Samples were secured from practically all the candymakers in the United States and the lemon-drop that was thought best for the men was adopted as the standard. The formula was then secured and distributed among a number of candy-manufacturers, with the result that at present the Army is being very well supplied with the confection. The lemon-drops now being supplied to the Army are made of pure granulated sugar and are flavored with an emulsion made from the rind of the lemon. It is found that an extra sour lemon-drop is the favorite with the soldiers. The product made from the formula used has the thirst-quenching quality of lemonade.

Care is being taken to see to it that manufacturers do not use undeveloped cacao-beans in the manufacture of chocolate and candy for the Army. It is found that, among the beans used in making these products, there are many undeveloped beans. This is caused by the dense shade of the cacao-tree. The taste of chocolate made from the undeveloped bean bears the same relation to that from the developed bean as does the crab-apple to the winesap apple. Candy, when made from the poorer product while pure, is very different in taste, being somewhat bitter and unsatisfactory. Steps are being taken to see to it that this substitution is not made in Army products.

The Cup of Coffee

As a part of the plan of the Quartermaster Corps to keep American troops overseas well fed, the authorization for the establishment of coffee-roasting plants with the American Expeditionary Forces has been approved. Through the installation of these coffee-roasting and grinding plants in France, it will be possible to supply our soldiers with coffee that is issued within twenty-four hours after roasting. It has been estimated by coffee-experts that coffee deteriorates in quality about 30 percent when issued ten days after being roasted. The policy of the Subsistence Division of the Quartermaster Corps will be, to have coffee issued fresh every day. The American soldier likes his coffee strong, and the best Santos coffee is being bought and the best coffee-roasting process used, so as to give him what he wants.

The Subsistence Division has been somewhat handicapped in its work by the strong desire of its officers for service in France. Fighting the kaiser in the kitchen—in Washington—is without the glamor or romance of life at the front. This feeling has been a benefit, however, in that it has effected a keen desire for the comfort of the men in France, because the men who have secured the food for the Army see, in the men in the trenches, themselves, about three months hence. The personnel of the Subsistence Division has changed rapidly, but, not with such rapidity as to lose the pervading spirit that "subsistence must not fail." The men in the United States are looked after, and it is seen to that they do not lack in anything that is essential for their sustenance.

The Reserve Ration

Every effort is made for the men in the front-line trenches to secure hot food. There are times, however, when food can not be carried forward. This often happens under heavy barrage-fire or after gas attacks. To meet this situation, a reserve ration for the trenches has been prepared. This ration is prepared in a gas-proof camouflaged sealed container, and is sufficient food for twenty-five men for a day.

It consists of hard bread, corn-beef, corn-beef hash, roast beef, salmon, sardines, soluble coffee, sugar, salt, besides the necessary can-openers. The package is hermitically sealed, each container being subjected to water and air pressure before being accepted. This rigid precaution is taken so as to safeguard the food in it against poisoning during gas attacks.

The cream of food products is put into this ration. It is prepared in the most tempting manner, for, it is only used when there is blood and fire in the air. The Subsistence Division has seen to it that this food is especially good. To feed an Army well, requires sympathy and a "put yourself in his place" spirit. The ration contains prepared coffee that dissolves instantly in cold as well as in hot water. Hot water is not always procurable in the trenches, as having a fire means, to invite shells from the enemy.

Prices Paid for Army Supplies

The Subsistence Division has felt its duty, not only to the men in uniform, but,

also to the civilian population. It has solved the problems of making purchases in vast quantities without seriously affecting the markets of the country. It is true that there have been advances in price, because of the great demands of feeding an Army of two million five hundred thousand men. This, of course, has been inevitable.

The prices made by the Subsistence Division of the Quartermaster Corps for the most important articles of food supplies to the camps and cantonments in the month of July were as follows:

The basic price for Army beef in July was $23.05 per hundred pounds at Chicago. The Army cut of beef is worth $1.00 per hundredweight more than the standard cut. Hams were purchased at 31 cents per pound and bacon at 43½ cents per pound, both delivered at camps.

July purchases of butter were made on an average of 42½ cents per pound, f. o. b. Chicago, and 43½ cents delivered at camps. July prices for oleomargarine were 26¼ cents per pound, f. o. b. Chicago, and on an average of 27½ cents per pound delivered at camps. The price for lard was 26½ cents delivered at camps and for lard substitutes 21¾ cents per pound delivered in camps.

Flour was purchased at $11.10 per barrel of 196 pounds, packed in 98-pound sacks, f. o. b. Chicago. The average price for sugar was $7.30 per hundred pounds, f. o. b. seaboard refineries. Potatoes were purchased at an average cost of $2.84 per hundred pounds, delivered at camps, and the average price paid for onions in July was $2.97 per hundred pounds, delivered at camps.

The drain upon the commercial supply of food is greater now[1] than ever before, as very many of the 2,500,000 men in the Army prior to entering the service got their food from sources from which at present no supplies reach the market. This is especially true of the great number of farmers and small-town citizens who are now in the Army. It is estimated that the users of fresh beef have doubled with the mobilization of our troops.

At the beginning of the war, it was found that independent buying for the Army, Navy, and Allied Provision Export Committee was having the effect of raising prices in the market, as these agencies were bidding against one another. To control the commodities most affected, twenty of these articles covering the principal food supplies, which were believed to be those that were in such great demand that the supply was not sufficient to meet all requirements, were placed under the control of the United States Food Administration.

Army Purchases and the Market

Giving each packer, manufacturer, miller, and refiner the opportunity of selling to the Government a proportion of his product at a fair price and in that way contributing his bit toward the maintenance of the boys "over there" is, briefly, the basic idea underlying the method in which the Subsistence Division handles those products which constitute 40 percent of the total quantity of food supplied to the Army. This purchasing is done in conjunction with the United States Food Administration.

So enormous have grown the demands of the Army that the allotment-plan—each packer participating—was determined upon as the most feasible plan by which the Army could be supplied with these foods—canned vegetables and fruits, dried fruits, sugar, flour, milk, salmon, rice, dried and baked beans.

When the United States entered the war, it was faced by tremendous requirements for its allies, whereas the available supply on hand showed barely enough to take care of our own requirements. Conservation of wheat and flour was made possible by a voluntary agreement of the millers of this country with the Food Administration, under which every mill in the United States furnished its proportionate share to a committee of their own, which, in turn, divides the flour with the Army, the Navy, and our allies. The savings thus effected was equivalent to 130 million bushels of wheat; and this amount was actually exported to Europe over and above the available exportable surplus estimated in the fall of 1917.

Since January, 1918, more than 500 million pounds of flour has been furnished the Government, and, to the knowledge of the officials of the Subsistence Division, in spite of shifting of troops, railroad congestion, et cetera, there has never been a meal where the soldier has been without bread, and plenty of it. But, "plenty" does not

[1] This was written last summer.—Ed.

mean waste. Statistics from camps show that the actual amount of substitute used by the men in the service is greater than that which the food Administration asked of the civilian trade.

Some Items of Food

Next to bread and beef, probably the chief article of diet of the American soldier is milk, and the boy in the camp or at the front is getting his a little richer and of a more uniform quality than he ever did when he wore a white collar and tie. Almost 100 million cans of milk have been purchased for him during the first six months of 1918. Each canner of milk in this country furnishes his proportionate share at a price based on the market for each month.

Prunes, dried apples, and dried peaches form important parts of the Army diet. In fact, it is estimated that, for the next year, approximately 80 million pounds of these will be purchased, the larger proportion coming from California. Evaporated fruits not only are relished by the men, but, have a high food-value, as well. California also supplies more than 70 million cans of peaches, apricots, cherries, and pears, to which Hawaii adds approximately 10 million cans of pineapple. All of which shows that the troops are getting their luxuries as well as do the civilians.

You wonder why you are allowed only 2 pounds of sugar per month. More than 300 carloads, each containing 60,000 pounds —2 trainloads—were called for by General Pershing in June and half of July, alone. And this amount does not take into consideration the quantity supplied to the boys at the 32 camps and cantonments in this country, besides half a thousand more Army posts, forts, aviation-fields, et cetera.

Prices on all of the 23 different items allotted through the Subsistence Division are based upon cost findings of the Federal Trade Commission, and are determined after recommendation by the Food Purchase Board; this consisting of a member each of the Army, Navy, and Marine Corps, the Federal Trade Commission, and the United States Food Administration. In this way, each packer secures a fair return on his investment.

Purchasing is Systematized

Whereas, at the beginning of 1918, there was practically no central organization in Washington to direct the procurement of these 23 items of supplies, there now has been built up a complete system, whereby requirements for domestic and overseas use for twelve months ahead are anticipated, reserves provided, and adequate stocks kept at all depots and camps.

The major portion of the Army ration, however, is not bought through the Food Administration, but, through a zone-system of purchase. It was found, in purchasing the tremendous needs of the troops, that various organizations within the Army were unconsciously bidding one against the other. To eliminate this, the zone-system of purchases was introduced. Under this plan, the United States is divided into 13 zones, each having a purchasing officer. Purchases are limited to their respective zones. When one zone would receive bids from another, offers must be secured through the Quartermaster Purchasing Depot in charge in that zone. It can not be secured direct.

The system has had a steadying effect upon the food markets. The Army ration (three meals for one man per day) at present is costing about 43 cents throughout the United States. This cost does not include any profits upon the subsistence stores and freight, heat or light, help, fuel or overhead expense. 43 cents represents the actual cost of the food. When it is considered that the Army buys in enormous quantities and secures the lowest rates, this cost can be considered very liberal and assures the best food procurable.

Schools for Bakers and Cooks

Food must be well prepared, however, if it is to be appetizing. Toward this end, 37 schools for bakers and cooks are being operated, where men are taught how to cook and bake. To make even more sure of the proper care and attention, it has been recommended that a commissioned officer be compelled to inspect each meal served enlisted men. It is the universal practice throughout the Army for the officers to make frequent inspection of messes in their command. It is found that, where the meals are inspected three times daily, much better satisfaction is secured.

[*To be continued*]

What Others are Doing

DICHLORAMINE-T IN TONSILLAR INFECTIONS

In an abstract of a paper by Dr. D. Bryson Delavan, discussing the value of dichloramine-T—chlorcosane solution in the treatment of infections of the upper air-passages, which was published in the *New York Medical Journal* for January 25, we find a very interesting discussion of the advantages of using dichloramine-T for sterilizing the vault of the pharynx and the tonsils. Doctor Delavan says that dichloramine-T may be used to advantage in these regions in three different conditions: (1) To prevent the extension of newly acquired infection; (2) to overcome the acute results of infections; and (3) to exterminate the bacilli persisting in carriers. He continues:

"The success of the method must depend upon the thoroughness of the application of the disinfectant. Brushing the surface of the tonsil or spraying the lower section of the nasal cavity could not, possibly, be effective. A spray-atomizer must be used that would carry the spray in all directions, upward, downward, and sidewise. The crypts of the tonsil must be disinfected down to their lowest depths, and the superior half of the nasal cavities must be thoroughly reached.

"To effect this, the following principle must be recognized and carried out: The parts must first be cleansed and then exposed to the fullest extent by the application of adrenalin or some similar astringent, and, finally, the dichloramine-T oil sprayed into them, until every crypt and recess has been completely reached. This thoroughness was absolutely necessary, in order to secure the removal of the most deeply seated germs. Used in the strength of 2 percent or less, the solution with chlorcosane was not irritating, although stronger solutions possibly might be. Suitable atomizers were necessary.

"The success of this method had thus far been gratifying. Where this method failed, in the presence of hypertrophied tonsils or adenoids, the removal of the latter might be necessary to effect a final cure. It was desired to furnish a method so simple in itself as to be readily carried out by the average practitioner, with the aid of apparatus inexpensive, durable, clean, compact of form, light of weight, and, therefore, available for use under all circumstances of medical practice, whether civil or military."

THE HELIOTROPE-CYANOSIS OF INFLUENZA

In a paper on influenzal septicemia, published in the January 4 number of *The Lancet*, considerable stress is laid on the characteristic bluish or heliotrope color which characterizes the fatal cyanosis of influenza, or, as the authors call it, "influenzal septicemia." Their observations are epitomized in the following two paragraphs:

"Of all the features of the 'pneumonic' cases, we would lay most stress upon the color of the patient. He may not have much color at all, he may be flushed, he may be sunburnt or he may be plethoric; but, whatever the degree of his facial color, we have always been thankful when this color has remained *red*. It may be a sallow face, with redness of the lips and ears, only, or the patient may be of a rubicund type, with general redness of his whole face, or he may be flushed with the unnatural redness of fever; but, so long as his lip and ear color, whatever its degree, is *red*, there is ample room for hope of recovery, no matter what the lung signs, the temperature, the pulse rate or the respiration rate.

"When, on the other hand, in order to reproduce the color of the patient's facies, especially of the lips and ears, one would need to mix some heliotrope or lavender or navy-blue with red paint so as to produce the right tint, the prospect is grave, indeed, even if, at the moment, the

patient seems comfortable, has no signs of consolidation in either lung, is sleeping fairly well, taking nourishment, has no more than an ordinary degree of pyrexia, a good pulse rate not unduly fast, and a respiration rate that may not strike one as being unusual in the circumstances."

TREATMENT OF PNEUMONIA

In an article on the diagnosis and treatment of pneumonia and empyema, at the United States Naval Hospital, Newport, R. I., F. A. Asserson, U. S. N., and W. L. Rathbun, U. S. N. R., say (*U. S. Naval Med. Bull.*, Jan '19,) that, in the cases under their case, the medicinal treatment was purely symptomatic. Digitalis and its alkaloids were used for a flagging heart and morphine or codeine for pain, severe cough or restlessness. Tympanitis, always a bad symptom, was controlled by milk-and-molasses enemata (1 cup of milk and 1 cup of molasses); by turpentine stupes and by the administration of compound jalap powder in the severe cases.

Sponging for high temperature was found useful. Careful nursing and judicious feeding are of the utmost importance and the patient should be given the maximum amount of nourishment that can be assimilated. The drain on the patient's reserve is excessive and a high-calory diet, composed of easily assimilable nourishment is of vital importance The well recognized stimulating properties of food are also an additional indication for its administration in maximum amounts. Except in a very few instances, the patients were able to take very satisfactory quantities of food, if proper attention was paid to the bowels. The pain of diaphragmatic pleurisy was controlled by a tight abdominal binder.

THYROID EXTRACT IN COMMON FEMALE AILMENTS

A very interesting article upon The Treatment of some common female ailments is contributed by F. J. McCann to the December 28, 1918 number of *The British Medical Journal.* Of particular interest are his recommendations regarding the use of thyroid glandular substance. For instance, he says: "The obese female with scanty and irregular menstruation accompanied by headaches, depression, and pelvic pain, can be successfully treated by thyroid extract. To obtain success, the thyroid extract must be administered in small doses for a lengthy period. Not more than 1 grain should be given daily, and this dose is best administered at bedtime. Indeed, it would appear that smaller doses are more efficient, and I now frequently prescribe 1-2 or 1-4-grain doses. The dose should be continued without intermission unless there is evidence of intolerance, when a still smaller amount, of 1-10 grain, may be given or the remedy discontinued for two or three weeks. Ovarian extract, grs. 5, administered thrice daily, may be added.

"When the amenorrhea is associated with anemia or chlorosis, the addition of thyroid to the usual treatment with iron and arsenic is productive of quicker and better results."

Thyroid substance was used, also with similarly good results, in the treatment of disorders of the climacteric period; in fact, Doctor McCann says he has only found two remedies of value, and these are ichthyol and thyroid. He declares that there is probably no remedy that has such power in controlling the vasomoter effects following the cessation of menstruation as thyroid extract. He has also tried ovarian extract and corpus luteum, but, with varying degrees of success. While these are of value in some cases, he is inclined to pin his faith on thyroid alone.

CAMPHOR IN INFLUENZA AND BRONCHOPNEUMONIA

During the recent outbreak of influenza in England, P. L. Guiseppi states, in *The British Medical Journal* of December 28, 1918, that he treated 250 cases with camphor, with a mortality of one—a man who died after three days' illness from bronchopneumonia.

The incidence of bronchopneumonia in the 250 cases was 26, or 10 percent; in another series of 200 cases during the same outbreak, and not treated with camphor, the incidence was 8 percent. The outbreak was very severe, and the cases treated ranged in severity from very acute to mild cases. The temperatures varied from 105.5° to 100° F.

The treatment adopted was the administration of pills containing four grains of

camphor made up with soap, in mild cases three times daily and in the very acute cases every three hours. The treatment was continued until the temperature dropped and the signs of bronchitis or bronchopneumonia cleared up.

Camphor is also a favorite remedy in the United States for the treatment of pneumonia, but, here, the favorite method of employing it is subcutaneously. Thus injected, the physician is sure of getting the full effect of the drug. It may be given in relatively small doses (1 1-3 to 3 grains) for its stimulant action; or it may be given in the full 36-grain dose of Seibert, once in 12 or 24 hours. Camphor is readily soluble in oil, and is supplied in this form in ampules ready for administration.

In many respects, camphor is the best stimulant for use in influenzal pneumonia. It has the advantage of being sedative and, at the same time, supports heart action and relieves the tendency to insomnia and nervous excitement.

A NATIONAL LABORATORY FOR THE STUDY OF NUTRITION

"A resolution of the Inter-Allied Scientific Food Commission, which does not appear to have attracted as much notice as it deserves, dealt with the need of establishing national laboratories for the study of human nutrition. The commission pointed out that, as at least one quarter of the whole income of a nation was devoted to the purchase of food by its individual citizens, it was a matter of the highest importance for the welfare and prosperity of a country that the methods of utilizing its food resources in the best way should be explored and definitely established on the basis of scientific data. The commission therefore adopted a resolution urging the allied governments to establish national laboratories to be devoted to the task."

A clipping from *Science* containing the foregoing paragraph was sent us by our friend and contributor Doctor Cuzner, of Gilmore, Florida, with the request that we publish it with suitable editorial comment. However, is any comment called for? Of the need of laboratories for the study of human nutrition, there can be no doubt. True, such studies are being carried out in various physiological laboratories; yet, their results never have been popularized sufficiently to be of actual advantage to the consumers of foods, namely, Mr. and Mrs. Common People and their children. Usually, discoveries and statements concerning problems of nutrition are seized upon by interested manufacturers of 'health foods," breakfast foods and similar articles, who, though, are prone to "edit" the material so as to favor the sale of their own merchandise. By all means, let us have laboratories as suggested, and, let the results of their investigations be published in such a manner as to be of benefit to the masses.

SCOPOLAMINE-MORPHINE AMNESIA IN LABOR

In the *American Journal of Obstetrics* (Oct. 1918) W. R. Livingston reports on 275 cases of delivery under scopolamine-pantopon amnesia in which there was no maternal mortality nor any immediate mortality in the newborn. Among the advantages of the method to the mother are the following: Heart lesions are saved the danger of muscular effort and exhaustion; borderline pelvic contractions are allowed the full test of labor with a minimum of exhaustion; the mother knows throughout pregnacy that labor will be practically free from suffering; the cervix dilates with less trauma, and, in first labors, more rapidly; use of high forceps is relatively infrequent; afterpains are absent or of lessened severity; breast engorgement is less; there is absence of shock *post partum*, together with absence of muscular soreness and exhaustion; convalescence is more rapid. In regard to the child, the advantages are that more babies are born alive and that they have a better start in life because of the better mental and physical condition of the mother and the relative absence, in the milk, of the toxins produced by prolonged suffering and physical exertion.

LEMON JUICE AS AN ANTISCORBUTIC

Chick, Hume and Skelton of the Lister Institute have been investigating the comparative antiscorbutic value of limes and lemons. Their results are published in the November 30, 1918, number of *The Lancet*. They have ascertained the following interesting fact as a result of their experiments

upon monkeys and guinea pigs, i. e., that the value of fresh lemon juice as an antiscorbutic is approximately four times that of fresh lime juice. The latter seems practically valueless in the prevention of scurvy.

A PROPHYLACTIC FOR PNEUMONIA

In a paper by Lt. Col. C. N. B. Camac (*Amer. Jour. Med. Sciences,* Dec. 1918), reporting some cases of lobar pneumonia treated with antipneumococcus serum at Ft. McPherson, Georgia, he states: "Dichloramine-T in chlorcosane, 2 percent, was used as a throat spray for attendants and with some of the cases. In cases of measles, we found that pulmonary complications were less frequent when this treatment was employed."

SUDDEN DEATH AFTER INTRAVENOUS INJECTION OF NEOSALVARSAN

In the *Gazette des Hôpitaux* for January 23, Doctors Courtois-Suffit and Giroux published an account of a very unfortunate occurrence that took place in the office of a Paris physician. A young married woman, thirty years of age, affected with syphilis, had consulted this physician with a view of undergoing energetic treatment. Clinical examination as well as a positive Wassermann left no doubt of the nature of the malady and a course of intravenous injections of novarsenobenzol was undertaken, commencing with small doses and increasing gradually at intervals of between eight and ten days. Shortly after the eighth intravenous injection, the patient suddenly complained of feeling ill, convulsions supervened, pulse became small, respiration stertorous, and, despite the usual emergency measures, such as, injections of adrenalin and of camphorated oil, artificial respiration and so forth, the patient expired two hours after the intravenous injection had been administered.

Suit having been brought by the family of the patient against the attending physician, Doctor Courtois-Suffit was charged with making the autopsy which, though, gave negative results throughout.

Since the fatal accident had not taken place until after the eighth injection, it is hardly proper to assume an arsenical intoxication, for the reason that, in intravenous injection of arsenical remedies, the elimination takes place promptly. Anaphylactic or anaphylactoid accidents, small intravascular coagulates that can not be discovered during the autopsy, may, on the other hand, explain the death in this instance.

The authors conclude by declaring that they have no desire whatever to criticize the therapeutic procedure of administering novarsenobenzol by intravenous injection, since the efficacy of this method is indubitable and the clinical results are remarkably rapid and good. Moreover, such serious accidents, fortunately, are extremely rare. The authors of this article refer to the publication by Dufour, in *Paris Médical* of 1914, on the subject of reflex therapeutic epilepsy and which possibly might have some relation to the case in point.

THE DISADVANTAGES OF IODIDE OF POTASSIUM

In the *Bulletin des Hôpitaux de Caracas,* Doctor Avny (*Monde Méd.,* Jan., 1919) has recorded the results of a study concerning the mode of action of iodide of potassium. Among some of his interesting conclusions are the following:

Iodide of potassium, which is not antiseptic, is an active remedy in syphilis and actinomycosis.

Small doses are insufficient in the treatment of these maladies.

The socalled intolerance to potassium iodide is due mainly to a diminished alkalinity of the tissue fluids.

The manifestations of iodism are counteracted by alkaline treatment by means of bicarbonate of sodium in large doses.

In persons whose tissue fluids are alkaline, iodide of potassium is well tolerated.

This explanation of the causes that so often lead to symptoms of iodism during the prolonged ingestion of potassium iodide is of great interest and accounts, at least in part, for the fact that other preparations of iodide, such as iodized calcium, are tolerated far better than the potassium salt, yielding the same beneficial clinical results, while accidents of iodism are less frequent. However, the implied suggestions of adding sodium bicarbonate to iodide preparations, if they are taken over long periods of time, seems to us

logical and worthy of adoption. In addition, however, to a form of iodine that is not open to the objections proved against the potassium salt, it will be well to prescribe the concomitant taking of alkaline preparations, such as saline drinks, for instance, when iodides are taken in large doses or over long periods of time. The idea is, of course, to assure a satisfactory and complete elimination of the iodine so as to prevent systemic disturbances.

THE TREATMENT OF SYNCOPE BY MASSAGE OF THE HEART

At a recent meeting of the Surgical Society of Paris, France, an experience of Doctor Lefèvre was reported by Doctor Mauclaire (*Paris Méd.*, Feb. 1) concerning a wounded soldier, in whom it was necessary to open the thorax on account of a wound in the lung. Immediately after the operation, which lasted twelve minutes, syncope supervened, the cessation of the respiratory action being followed by that of the heart, while none of the customary measures was effective in resuscitating the patient. After twelve minutes of unremitting effort, Doctor Lefèvre opened the thoracotomy-wound, introduced his right hand into the thorax, and undertook direct massage of the heart. It was necessary to manipulate this organ for more than half an hour before the cardiac contractions had resumed their normal rythm. The patient regained complete consciousness, but, nevertheless, succumbed twelve hours later without an apparent cause. There had been an injury to the spinal cord at the level of the fourth dorsal vertebra and the author suggests that, possibly, this was responsible for the death.

In the discussion, Doctor Mauclaire mentioned that there were known sixty-eight observations of massage of the heart of which fifteen had been successful, while in sixteen the cardiac contractions were restored temporarily and in thirty-seven the manipulations entirely failed to cause renewed action of the heart.

Doctor Baudet referred to the necessity of differentiating between respiratory and cardiac syncope in anesthetic accidents. In two attempts at direct massage of the heart, he found in one case that he was dealing with a true cardiac syncope, in which massage and electric stimulation of the heart proved unsuccessful, but, in the other case the heart reacted perfectly, although the lung remained without motion. In this last case, rhythmic traction, as well as electric stimulation of the lung, were unsuccessful. Very gradually the heart beats diminished in force and finally ceased definitely, neither massage nor electric stimulation being able to restore them.

Doctor Le Fort reported that he tried, on three or four occasions, to massage the heart directly but without success. The same experience was reported by Doctor Pierre Delbet in two cases in which the syncope was due to cerebral anemia.

Doctor Duval prefers, in cardiac syncope, the injection of saline solution into the left ventricle, while Doctor Quénu is of the opinion that, if an assistant informs the surgeon of the exact moment when the pulse beats are arrested, vigorous stimulation of the trigeminus and slapping of the face will be successful in reanimating the heart.

Doctor Chevassu has seen a man whose heart had been injured by a knife thrust and who had actually been bled to death, in whom, however, life was restored for twenty-four hours by transthoracic massage of the heart.

Doctor Sencert recalls that he has reported, more than ten years ago, an experiment, together with Doctor Lambert, according to which, in animals that had been completely bled to death, the heart's function could be maintained artificially by continued injections of suitable saline solutions into the heart cavities. The ordinary normal saline salt solution, however, is not sufficient, the injections requiring calcium as well, which has been found indispensable for this purpose.

"CARRY ON."

We have received the fifth number of *Carry On*, a magazine devoted to the reconstruction of our disabled soldiers, sailors and marines. This interesting little magazine has been referred to before now in this journal, and merits general support. The latest number contains some very interesting communications among which are the following:

"Sand", by George Barr McCutcheon.

Mr. McCutcheon, in his interesting style, tells in dialogue form of the fighting spirit

of the marines who will "carry on" in civilian life as they did in Belleau Wood and Chateau Thierry.

"Leaving Too Soon", by Colonel Frank Billings.

Colonel Billings is Chief of the Division of Physical Reconstruction. In civil life he is Doctor Billings of Chicago, and one of the best-known men of the country. This article is an appeal to the relatives and friends of wounded men to urge those who are convalescent to stay in the hospital as long as treatment is necessary.

"Paying a Draft of Honor", by Charles H. Winslow.

The Federal Board for Vocational Education emphasizes again the opportunities open to the disabled fighter in industry.

"Do It Yourself", by Captain Arthur H. Samuels.

This is an appeal to the people of the country to consider the restoration of the disabled man to civil life as a personal obligation—not as a matter for merely sentimental sympathy.

"How I Commandeered My Left Hand", by W. A. Rogers.

An unusual experience told in a most interesting way by the well known cartoonist of the *New York Herald.*

THE BACTERIOLOGY OF GRIP

At a meeting of the French Academy of Medicine, recorded in *Paris Médical* for February 1, Doctor Meunier, who had undertaken detailed bacteriological investigations during the grip epidemic, reported that during the first period, last spring, only the coccobacillus of Pfeiffer had been found and that the cases of grip had been generally mild. During the recurrence of the epidemic, last August, the Pfeiffer-bacillus still was frequent, although very often it was associated with the pneumococcus. Later on, this latter was found more frequently and even exclusively, though often in association with the streptococcus, and, in that case, pleuropulmonary complications came to be observed.

Doctor Meunier believes that, even if the microbe of the grip is a filterable bacillus, the Pfeiffer-bacillus nevertheless is an important factor in the etiology of the disease.

In connection with this report, Doctors Besançon and Legroux referred to a micrococcus aureus discovered by them and that is of importance in association with other microorganisms, for instance the Pfeiffer-bacillus, all of which probably determine the complications of grip.

Heated cultures of the various microorganisms incriminated have been utilized in the Pasteur Institute for the preparation of a polyvalent vaccine. In certain cases, Doctors Besançon and Legroux have observed, under the administration of this remedy, a reduction of the temperature as well as a diminution in the duration of the illness, even though this already was complicated with pulmonary manifestations.

THE ORAL HYGIENE IN GRIP

During the discussion on grip before the French Academy of Medicine, referred to in the preceding article, Doctor Pierre Robin expressed the opinion that a well-executed oral hygiene would make it possible to prevent complications in the course of grip and also to avoid endangering others by contact. Doctor Robin described a new method for the purpose of securing asepsis of the mouth and teeth, recommending especially the employment of Ringer's solution, as modified by Netter, and by solutions of bicarbonate of soda.

"WHEN DO WE EAT?"

"When do we eat?" the first question fired at the American people by the returning heroes as the first big troopship steamed up the North River bearing the van load of our brave lads from "over there," may not be as inspiring as some of the lofty utterances brought forth by the war, but it is so typically boyish and human that it will long be remembered.

And who answered that question?

Individual mothers could not give the first greeting to their loved ones but "the Greatest Mother in the World" was waiting in their place and provided every possible comfort, including "the eats."

The Red Cross Canteen workers were the only people allowed on the pier, with the exception of the official committee, and they made good their welcome to the boys with thousands of sandwiches, sugar buns, coffee or chocolate and cigarettes.

The boys eat whenever the Red Cross canteen meets them.

Let's Talk it Over

Studies on Food Economics

Alcohol as a Food

[*Continued from February issue, page 135*]

SINCE writing the above, I have come across the reports of a series of experiments by Dr. Emil Kraepelin, professor of mental diseases in the University of Munich.

"A group of men—who were kept in ignorance of the real nature of the tests, who understood only that they were expected to persist to the limit of their endurance—were capable of a definite average quantity of work."

This average was determined with almost mathematical certainty by experiments made dozens of times, under absolutely similar conditions as regarded time of day, food, exercise, and surroundings.

"A good index of the degree of a man's capability for work is the weight he can continue to lift with the index-finger of his right hand."

So, the ergograph, a celebrated laboratory device invented by Prof. Angelo Mosso, was brought into requisition. In manipulating this, the fingers were clinched round a wooden peg (all but the index-finger), the arm held immovable by being clamped to the arm of a chair. A weight of several kilograms, suspended by a small rope that passed over a pulley, was raised and lowered until the subjects were forced to desist from exhaustion. This process was repeated twelve times, with rests of a minute intervening—like the rounds in a boxing-contest. Each pull was automatically recorded by a pencil on a strip of paper, registered by a line. The sum of the lengths of all the lines was translated into "meterkilograms", which meant, the work accomplished by raising one kilogram one meter against the pull of gravity. These experiments repeated made ten times a day, and the total average of each man was calculated for a number of days, under conditions of absolute abstention from alcoholic drink.

Then the men were given the alcoholic equivalent of a "good glass" of Bordeaux wine after each meal, and the experiments were repeated. The consequences were, a diminution in the subjects' ability to withstand the fatigue of weightlifting, amounting to an average of from 7.6 to 8 percent. These experiments were repeated hundreds of times, by scientists in various parts of Europe, and always with a similar result. In every instance, a definite measurable loss in muscular efficiency was demonstrated.

Having shown these effects on resistance to fatigue, the learned professors advanced to the consideration of principles involving combined muscular and mental processes.

The "writing-balance", invented by Professor Kraepelin, was subpenaed as chief witness in this case. This ingenious contrivance had attached to it a fifth-second chronometer, which automatically registered time on a rotating drum covered with carbon-paper. On the record obtained in this manner, the time required in writing a set of characters can be computed with an error of less than 1-200 of a second. The unit of time in which the trials were based was called a "zeta" and corresponded to 1-100 of a second.

The daily exercise began at 8 a. m. The subject's hand was connected with the apparatus, and the figures 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 were written twice with pencil at top speed. Then the sequence reversed—10, 9, 8, 7, 6, etc.—was twice written. Then the German letters "inm" also were twice written. These were repeated ten times, and the total average time consumed by each man was measured.

Then each received his allotment of wine, as with the ergograph-experiments. After five minutes, they resumed their writing,

carrying out their appointed task in scribbling as before—and proved that, while the spirit was willing, the flesh, and its controlling nerve-impulses, was weakened; for, they had, every man of them, measurably slowed up.

The degree of retardation, after writing 1 to 10 under the influence of the small amount of alcohol administered (about what the ordinary drinker would take with his dinner) amounted to 5.6 percent. In writing 10 to 1, the retardation was greater, amounting to 7 percent. This was accounted for by the increasing complexity of the stunt, it being a more novel combination than the straight progression of numbers. With the "inm", the deviation from normal was even more apparent, averaging 7.3 percent. Again and again these same general results were secured. New crews were used for each demonstration.

Similar results followed in the coordination-tests, when the subject was required to "snap down" a telegraphic switch at the unexpected flash of a light or sound of a gong, the time elapsing between the flashing of the light or striking the gong and closing the switch being measured by the "zeta" chronometer. In every case, the rapidity of the coordinating responses were decreased from 6 to 8.3 percent.

Next, a number of accountants of all grades were selected and their average ability to add one-figure columns was estimated for one week. They were then given daily, in divided doses, the equivalent of 3½ cups of claret wine. A marked and progressive diminution in their output was noticed, beginning with 3.1 percent on the first day. After two weeks of this steady, moderate alcoholic allowance, the percentage increased to 15.3.

Similar experiments were then tried on typesetters. These were required to set type from printed pages (to insure absolute uniformity of copy) and the total number of ems a day was computed for a week. Then, with daily "gentlemanly" drinks, they lost an average of 9.6 percent in efficiency by the end of the week.

Perhaps the most convincing observation was concerned in the "free association of ideas." This, when the condition is raised to the fourth dimension, causes the party of the first part to forget his watch and chain, the number of the house in which he lives, and his wife's first name. He is then in a state for which the vulgar have a variety of picturesque names. The scientists call it "alcoholic inhibition,' and they can usually define the gradients with precision.

However, we are now considering alcoholic inhibition in embryo—before it grows up and develops, as it were—and the various methods employed in classifying its general characteristics.

To illustrate: If the name of an object is spoken, immediately one thinks of something in connection with that object. Professor Kraepelin's subjects were requested to write these ideas down, enumerating as many associated objects as occurred to them in the space of five minutes. Two words were given out at each séance, five minutes being allotted to each subject. This was repeated at intervals during the day, for ten days, and the average number of suggested things reckoned up. Then, each evening preceding the next ten days, a generous "nightcap" was donated and the results of the following ten-days' "association" were computed. A loss in coordinating power in this series amounted to as high as 27 percent."

Doctor Bower, who reports these experiments, says, Doctor Kraepelin considers that alcohol is a narcotic, first, last, and always; also, that the stimulation is merely imaginary (I believe he might have added, that it is an anesthetic, like ether and chloroform).

Dr. Bower, summing up these demonstrations, thinks they prove conclusively, "that one who drinks much is living only a small part of his normal life."

Seeing the proved evils of the drink-habit and the great expense it entails on the nondrinking public, it seems to me a rank injustice to the latter to legalize the saloon.

A. T. CUZNER.

Gilmore, Fla.

IODIZED CALCIUM FOR THE COUGH OF GRIP

The most satisfactory remedy for the distressing cough attending influenza, and all catarrhal troubles this season I have found to be iodized calcium.

Leave with the patient, when racked with the most distressing cough, four or five large 5-grain tablets of iodized calcium, with instructions to chew and swallow slowly one tablet as needed. When you call the next day, you will find some of these

tablets not used. The patient will say: "The first tablet stopped the cough, and I have not really needed the rest, although I took one or two from time to time, as I feared the cough might return."

No further comment is necessary. You who are familiar with these tablets know the prompt and satisfactory way in which they act in these cases.

There is much said nowadays about the influenza, and its treatment, and some rather dogmatic teaching about influenza and pneumonia by means of quinine is interesting.

More than forty years ago, quinine was, in the minds of some, *the* remedy for pneumonia, but, like all medical gods, it had its induction, its worship, and its decline. I well remember a remark made in the late '60s by my brother, the late Dr. I. G. Cope, of Colerain, Ohio, relative to the quinine treatment for pneumonia. He had been a surgeon in the Civil War and was an expert physician. He said that doctors were being misled by this teaching, for, quinine was not a specific, and those that were advocating it would be condemning it a few years hence.

At that time, a promising young lawyer at St. Clairville came down with pneumonia and the word came to us in his home township. Thereupon, my brother said: "I do hope they will not fill Joe up with quinine. If they do, it will kill him." It turned out that this was a true prediction. The St. Clairville physicians, firmly believing in the efficacy of quinine, gave it to the limit. He did not recover. This gave a severe setback to the quinine-treatment in that vicinity, as Joe was a well-known and most promising young man.

I do not decry the use of quinine, but, would suggest that everyone use his judgment and treat the patient, and, not the disease. Quinine, I think, owes its power (aside from its value in malaria) to its action as an intestinal antiseptic.

Note, there are many others.

Reverting to pneumonia: There is a statement getting wide publicity at this time that needs looking into, namely, that pneumonia is a contagious disease.

More than twenty years ago, such a statement was published, and, in talking to the late Dr. J. G. Connor, of Ionia, Michigan (who, by the way, had been a surgeon in the Civil War and whose years of medical experience there were many more than mine), said: "I do not recall that I ever had more than one case of pneumonia in one family at the same time." I then began to recall to mind my own cases, and, strange to say, my experience coincided with that of Doctor Connor, exactly. Since then, I have watched this question, and I can truthfully say that I have never had two cases of pneumonia in one family at the same time—never two cases of pneumonia following each other in the same family.

I should not wish to stay the watchfulness that is secured by prevention. All I wish to do is, to say, Watch, work, wait, use your own head, and take, with some allowance, anything that is not self-evident.

C. S. Cope.

Detroit, Mich.

A SUCCESSFUL TREATMENT FOR INFLUENZA

No doubt this letter will be a surprise to you, however, I feel it my professional duty to say a word relative to the use of iodized calcium in influenza-cases, hoping that some brother practitioner that has been overburdened with bronchopneumonia following an attack of influenza will profit by my experience.

Our town, the same as all other places, has had the epidemic, and I have treated 165 cases without a single death occurring, and I attribute this excellent record to the free and unlimited use of iodized calcium. I give this preparation to the little, the big, the old, and the young alike, and it is surprising to see how quickly the secretions loosen up and how little of bronchial irritation remains after the lapse of two or three days. I have had several cases of bronchopneumonia (7 or 8), but, they were all in patients that had treated themselves, throughout their attack of the influenza, with "teas", plasters, hot lemonade, and so forth; but, when the complication supervened, they called for my services, saying that they had had a "backset." In the course of the pneumonia, I do not stop the iodized calcium, but, continue its use along with the usual pneumonia-prescriptions.

Now, I do not wish to be quoted as saying that iodized calcium is a specific; I do

say, however, that its use in influenza will yield splendid results.

At the onset of an attack, I always clean out the intestinal tract with minute doses of calomel, followed by a laxative saline, while, for the general aching, I secure splendid relief with a few doses of aspirin. If the stomach is deranged, I withhold all food for twenty-four hours, then put the patient on milk, broth, rice, and fruit-juices, and add freely the semi-solids as the patient demands.

I impress strongly upon the minds of all patients the necessity of staying in bed for at least three or four days after they feel that they are well, and thus, I have experienced no trouble.

In my 15 years of active duty as a country physician, I have not written many articles for publication, but, as said, I feel it my duty to say a few words on this subject, as the death-toll from influenza throughout this country of ours has been appalling; so that, if I have said anything that may prove of benefit to any reader of the journal, I am sure I shall be pleased and fully repaid for the time spent in writing of my experience. Best wishes for CLINICAL MEDICINE and all its numerous readers.

A COUNTRY DOCTOR.

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[Thank you, doctor; and "come again." Your 15 years of country practice must have given you much that would be of interest to others. Iodized calcium is a dependable remedy and should be employed more generally.—ED.]

SIGNIFICANCE OF BLOOD IN URINE IN INFLUENZA

I read Doctor Croft's article (this journal, Dec. 1918, p. 889) with deep interest, but notice that the urine is not mentioned. I have never seen a patient with "flu" get well that had blood in urine with the first fever symptoms.

Also, I have observed that there is a large percentage of cases showing sugar in the urine. The urine of every influenza patient should be examined repeatedly, as elimination can not be overlooked.

G. L. CROOKETT.

Thomaston, Maine.

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[Here are two important points with reference to the prognosis and to possible complications of influenza. Has the serious significance of blood been noted by others? It would be interesting to study urinalyses of a series of cases comparing them with the clinical histories. Perhaps Doctor Crockett will prepare such a study for CLINICAL MEDICINE?—ED.]

THE "GRIP" TRAGEDY: ITS GENESIS

Concerning the etiology of influenza, Supplement No. 33 to the *Public Health Reports*, Sept. 27, 1918, carried the fundamental statement that "The mere preponderance of a certain organism in the respiratory tract can not be accepted as proof that it causes the disease."

Since the days of Thomas Hobbes, 1588-1679, invariable presence, only, is conceded to entitle an "accident" (a bacterial organism for instance) to rank as cause; it must be found in every case without exception. Hobbes defined cause as "the sum or aggregate of all such accidents, both in the agent and the patient, as concur in producing the effect propounded; all which existing together, it can not be understood but that the effect existeth with them; or that it can possibly exist if any of them be absent."

The influenza bacillus of Pfeiffer (1892) instead of being invariably present and, therefore, "the specific causative factor in the present pandemic," has been notoriously conspicuous by its absence. Bacteriologic studies and reports of the pandemic in Europe show that the influenza bacillus was found only exceptionally. Friedmann and Gruber, in Berlin, failed to find the organism; so also with Kolle, of Frankfurt, in any of the cases he had thoroughly examined. Only three or four cultures out of a total of 184 examined and studied by workers at the State Laboratory, Trenton, N. J., showed Pfeiffer's bacillus with or without other organisms. The Massachusetts State Laboratory also found the organism in only a relatively small number of the 189 specimens examined. So B. Pfeiffer has a perfect alibi in the matter of causing the great "grip" tragedy.

This demonstration is of the utmost importance in view of the fact that the Pfeiffer bacillus was held to be responsible for the virulence and contagiousness of influenza. Not only is the non-contagious character of the disease now proven, so far B.

Pfeiffer is concerned, but, also, by application of the same rule the whole alleged etiological flora of "grip" is negatived as causing that disorder.

Cultures from cases of Dr. Hyman I. Goldstein, Camden, N. J., were studied at the State Department of Health Laboratory, Trenton, N. J., specimens being from sputum, nose, or throat (this journal, Dec. 1918, p. 903). It was found that streptococci, alone or with other organisms, appear in 114 of these 180 specimens. Absence from 66, or 36.7 percent of these cases, and from about 50 percent of the 189 specimens examined at Mass. State Laboratory, certainly excludes this organism as the "causative factor" in the influenza-pneumonias. Not only so, but streptococci and micrococci are constantly found growing on the skin and on the mucous surfaces of healthy people. These bacteria are also found in the tonsils and lymph glands. Since they have been shown not to be a causative factor in pneumonia or grip, and besides are known to be "constant parasites, or perhaps rather commensals of man," (Chapin, "Sources and Modes of Infection," 1916), it is obvious that quarantine and the use of masks is of no utility in preventing these diseases.

Among recent confirmatory observations may be mentioned those of Ruediger, Chicago, 1906; Gordon, London, 1904; Hess, Jena, 1907. These authorities are quite unimpeachable; besides, the facts stated with reference to the general distribution of bacteria, are doubtless well known to physicians generally, particularly those who affect surgery; so, we may confidently expect that cultures from the nose, throat, and sputum of 180 healthy persons would give a fairly exact duplication of the results at the N. J. State Laboratory referred to in the foregoing.

The New Jersey State Laboratory found pneumococci absent in 95 percent. of their 180 cultures above mentioned. Massachusetts State Laboratory found these organisms absent in 46 percent. of their series. When present, the incidence of types was not very different from the distribution of types in the mouths of healthy persons according to investigations carried out at Rockefeller Institute in which were examined 116 normal persons harboring pneumococci. The note concludes: "Our results seem to indicate that the influenza-pneumonias, when caused by pneumococci, were due principally to autoinfection." That the coccus of pneumonia is present in the saliva of normal mouths, was early recognized by Pasteur, Sternberg and Welch; a number of others confirm these findings, of which mention may be made of Park and Williams, N. Y., 1905. Obviously, again, quarantines and masks would have been futile in preventing these cases, since pneumococci have been excluded as cause and shown to be practically permanent residents with their human host.

But, if bacteria do not stand in causal relation to the pandemic, what, it may be asked, is the relationship in which they do stand to the disorder? Necropsies have made quite plain the answer to this question; pathologists assign bacteria to a connection with secondary effect, the findings in particular cases naturally varying with the bacterial flora, and other circumstances, of individual patients, all the different organisms suspected of complicity in causing "grip" being of well nigh universal distribution as has been shown.

Thus it is proved, absolutely, that bacteria do not exercise causal functions in extending this scourge. Indeed, as has been noted by many competent and reliable observes, it often goes faster than men travel; sometimes by jumps to isolated places.

While the respiratory type is more common, there are many cases, as every physician knows, in which the respiratory tract is not at all involved. In the gastrointestinal type, onset is with nausea and vomiting, or abdominal pain and diarrhea. Jaundice may be present and the spleen often is enlarged; but, there are no nose-, throat-, or lung-complications or sequels in this form of influenza.

In the nervous type, there is severe headache, pain in the back and joints and great prostration, but, catarrhal symptoms are not marked. Now, the not infrequent occurrence of these last mentioned types, without respiratory manifestations, positively excludes the respiratory type as a primary form of the disease.

And, so, we may say with the utmost assurance that, in its inception, socalled epidemic influenza is neither contagious, infectious, nor communicable. Local symptoms are preceded by abnormal systemic conditions in which cosmic influences are a large factor.

How do the bacteria, which we find associated equally with health and disease, be-

come pathogenic in the influenza-pneumonias? Following Sir Almroth E. Wright, it has been said substantially that "Any bacterium which can grow and multiply in an animal may be pathogenic to that animal. Given the capacity of metabolizing within an animal, the pathogenicity of a bacterium is dependent upon the nonspecific normal ferments of that animal; if these be rapidly destructive, the bacterium can not be pathogenic to that animal, because it can not increase sufficiently to furnish a toxic amount of poison."

According to Wright, then, the incidence of influenza would depend upon bodily condition, with special reference to "the nonspecific normal ferments." In other words, and from the standpoint of treatment, the disorder is always with us. The place of bacterin, or "vaccine," treatment is hereby made to appear; also its limitations and the results that may be reasonably expected from its use.

Summary: No single organism, or group of bacteria, causes socalled epidemic influenza.

The respirat ry type is not a primary form of the disease which is neither contagious, infectious nor communicable. It has its genesis in abnormal systemic conditions induced largely by cosmic influences.

Attention to personal hygiene, rather than regulation of the public by constituted authorities, certainly is the best means of warding off the scourge.

ELMER F. GOULD.

Camden, Me.

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[We are inclined to congratulate ourselves upon the rule that the editors are not to be held responsible for opinions and assertions expressed in signed communications. Personally, we confess our inability to view the bacterial factor, or factors, in influenza as anything but a very serious and important one. What do the readers of CLINICAL MEDICINE say?—ED.]

A CORRECTION

Dr. W. S. Cline has called our attention to the fact that in his little article in the January number (p. 53), we have made him confess to a mortality of 100 percent in his cases of influenzal pneumonia— "I had 5 down with pneumonia and lost them all". What Doctor Cline actually said was: "I had 5 down with pneumonia and lost one". We cannot explain how this error crept in, but we apologize to the Doctor for it. Please make the correction in your Journal.

FOR BRIGHT'S DISEASE— A SUGGESTION

I have just read an article entitled "Definite Medication." I wrote the author to use Abbott's alkaloids and he would need nothing more definite and few other remedies. Iodized calcium is one definite drug, and Syrup of the iodide of iron, for Bright's disease, is another. If you have a friend who is treating a case of Bright's disease, get him to try the syrup of the iodide of iron, 15 drops three times a day, with 1 to 2 drams of cream of tartar in a glass of water, drunk during the day, in association with a milk diet. You will see wonders. I am as certain it will do the work as Abbott is of iodized calcium.

W. S. CLINE.

Woodstock, Va.

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[The present editorial writer recently had occasion to employ the syrup of the iodide of iron in several cases in which the main feature was an irritated condition of the lymphatic nodes. The results were as surprising as they were prompt. In nephritis, we have not seen this remedy employed, but, we are strongly inclined to order it, right now, to two victims of that serious disease. Strangely enough, by the way, they are mother and daughter.—ED.]

INDUSTRIAL MEDICINE

Manufacturing interests throughout the country are becoming impressed with the vital necessity of properly safeguarding the lives and health of employes, not only from the viewpoint of the new humanitarism, but from a sense of business foresight.

The demand upon the newly established Working-Conditions Service, of the U. S. Department of Labor, for industrial physicians and surgeons, has grown so rapidly that the Service has been compelled to establish a bureau of registry of physicians trained and skilled in this growing phase of medical and surgical specialization.

The new registry bureau is prepared to furnish industries with the names of

skilled industrial medical advisers on request. The demands for competent medical directors for the factory department of hygiene are being met by the Service with an adequate list of physicians, all of whom have had experience and training in this particular function. Hundreds of such physicians are listed in the Government's registry bureau in Washington and hundreds are being added to the registration files.

In each instance, the Service satisfies itself of the training of the physicians before their names are allowed on the list. Thus, only those best qualified are listed and manufacturers have the advantage of knowing that, by availing themselves of this Service, their dispensary section will be in competent hands.

In addition to submitting names from the physicians' registry bureau, the Service is making investigations—only on request, however—of the general facilities for protecting the lives and health of employes. This work is carried on from branches of the Service now being established within easy reach of the nation's industrial centers. When such surveys are concluded, a report of the findings, with recommendations, is delivered to the responsible head of the particular industry. In this manner, industries are assured reliable and unbiased information from authorities who have studied industrial problems exhaustively, with expert training in hygiene, sanitation and related subjects.

DR. A. J. LANZA, Chief.
Division of Industrial Hygiene and Medicine,
Washington, D. C.

[Doctor Lanza, the chief of the Division of Industrial Hygiene and Medicine, was detailed to this work from the U. S. Public Health Service. The undertaking presents new openings and wonderful possibilities to physicians who possess the requisite training. The opportunity here offered should, we believe, appeal particularly to many medical officers now being demobilized and who had, on entering the Army, given up their location and practices.—ED.]

DOCTOR FARRAND APPOINTED HEAD OF RED CROSS

Dr. Livingston Farrand, President of the University of Colorado, has been appointed by President Wilson as Chairman of the Central Committee of the American Red Cross, to succeed William H. Taft.

Dr. Livingston Farrand,
Chairman of the Central Committee of the American Red Cross

As Chairman of the Central Committee, Doctor Farrand will become the executive head of the National Red Cross organization on the retirement of the War Council, which will take place March 1st.

In changing the Red Cross from a war

to a peace basis, far greater tasks will be involved than those undertaken during the ante-war period, tasks that will require the full time of those entrusted with the executive duties.

Since the entrance of the United States into the war, Doctor Farrand has been the director of the tuberculosis work of the International Health Board in France, and has been in close contact with Red-Cross activities. His broad knowledge of European conditions, his high executive qualifications and the vital force of his very unusual personality will all be vital factors in increasing the usefulness and broadening the scope of Red Cross work.

That the program of the American Red Cross under peace conditions will be virile, statesmanlike and broad is unquestioned.

REPLYING TO DOCTOR MARNER

In reply to Doctor Marner's article appearing in the January number of CLINICAL MEDICINE, (p. 56), I feel constrained to call his attention to two books, either of which can be had for 50 cents and needed postage. These are, "Christianity, and the Social Crisis," by Walter Rauschenbusch, and "Poverty and Wealth," by Harry F. Ward. I am sure that, if the Doctor will read these books, he will revise some of the rash statements made by him.

Regarding the medical part of his article, I think that the editor has answered him sufficiently.

JOSEPH PESTAL.

Lamar, Colo.

A SINN-FEINER PROTESTS

On page 62 of your January issue, I read the following: "Sir Roger Casement (executed for treason) . . . . and the Sinn-Feiners in Ireland, classed as Socialists, without a country and without a soul, hated of God and despised by man."

I regret very much that CLINICAL MEDICINE can be used to abuse a noble and patriotic people, whose laudable aim is, to govern themselves, as did our revolutionary forefathers. I deem Sir Roger Casement a second Ethan Allen and his Green Mountain boys that went forth, suffered, and died for the love of their country and its freedom. Were not George Washington, the Minute-Men, the signers of our Declaration of Independence all Sinn-Feiners? I believe they were and set the Irish people a good patriotic example. Your Iowa Tory contributor, whose name is not worth the writing, I believe would enjoy being on the firing-line, to shoot to death, for treason, George Washington and his followers in the days of '76.

Stick to the science of medicine and avoid the snares of low grade, unpatriotic, panoramic, anglomaniac politicians, who would poison the minds of the American medical profession through your journal, that they, in turn, may spread, unthinkingly, the disease-producing bacteria of monarchy. Out of the country with such men!

J. H. MCGANN.

Barton, Md.

A SOCIALIST'S VIEW

I am past 71. My references are, anyone where I have lived. I believe in the economic teachings of Jesus. I believe in Socialism, because its basic principles are absolutely just and true; namely, that everyone should receive the full social value of all that he produces, and not be compelled to divide the profits of his labor with the socalled employing class.

Socialism teaches, firstly, that all public utilities, all land, railroads, factories, and many other things should be owned democratically, managed by the wealth-producing masses themselves, and be operated solely for their own benefit.

Secondly, it teaches that all private property, including homes, pianos, vehicles and horses or any property used by oneself for one's self, and not for purposes of exploitation, should be owned and controlled by the individual.

Thirdly, the abolition of the wage-system and the substitution therefor of the system of joint ownership by all the people. Such a system would insure employment for all and prevent either great wealth for the few or poverty for the masses.

These are the basic principles of the "demon" Socialism so feared by Doctor Marner (see the January issue, p. 58). Socialism is well illustrated, so far as it has been adopted in this country, by our public-school system, and I hear no remonstrance voiced against it, nor even is it asserted that it is leading our children to ruin; and I am sure that even Doctor

Marner would not wish to change back to a private-school system.

Socialism has nothing to do with one's religion. Believers in it are to be found in every clime and among all races. I am greatly of the opinion that a few courses in calomel and podophyllin and saline laxative, to clear his think-tank, would cause the Doctor to see things and "isms" as they really are.

W. A. TURNER.

Lodi, Calif.

AUTOINTOXICATION

The longer we practice medicine and the more we study this subject by careful clinical observation, the more we are convinced that the question of autointoxication is one of the most-important subjects now before the medical profession. There are few diseases, if any, that are so far-reaching in their possibilities, in their effect upon the animal-economy. We are aware that there are some physicians that laugh at the term autointoxication and say that the thing is a myth and originated in the mind of some physician that wished to be different from the rank and file of the profession. But, we want to say that autointoxication is no will-o'-the-wisp or imaginary condition, but, a real disease, a disease in which every organ and tissue of the body may be affected; and that few people live to old age without suffering from it at some time during their life. It may be so mild that we are in doubt as to its existence or it may be so severe as to cause death.

That the reader may better understand the subject, we will try to answer, briefly, the question what autointoxication is.

It is a poisoning of the system from within. The poisons and toxins that are generated within the system are reabsorbed into the blood stream and thus poison the individual, producing a train of symptoms that are characteristic of the condition. In other words, it is a subtile poisoning of the general system from the absorption of bacteria and their toxins, and of poisonous chemical compounds formed within the body. Little by little these poisons are absorbed into the blood stream in quantities beyond the power of the eliminative organs to deal with successfully.

The Cause: This condition may have its origin in the liver, kidneys, spleen or intestinal tract or in a combination of these; but, at present, we will confine ourselves to treating only of the cause as it arises from the intestinal canal.

When autointoxication arises from the intestinal tract, it is the result of "intestinal stasis". And now you will ask, "What is intestinal stasis?" This condition is an abnormal delay in the passage of the contents of the intestinal canal through a portion or several portions of its length. This may be gastroenteric, gastroenterocolonic or the whole length of the canal may be sluggish and thus the contents of every part be delayed.

In whatever segment this retardation occurs, it not only allows but favors the rapid development of all kinds of bacteria inhabiting that part of the alimentary canal. Hence, bacteria, toxins, and various chemical poisons are absorbed into the blood stream. And this process of absorption goes on so insidiously that the patient is not aware of its presence until the system is saturated and his health is badly undermined. Even then he has no idea of what has overtaken him.

The eliminative organs soon become crippled, as it were, and their normal functions impaired; hence, they allow still more poison to accumulate. The lymphatic system also is soon poisoned and, in consequence, fails to guard the blood stream by not being able to convert poisons into innocuous substances as it does normally.

In intestinal torpidity or stasis, many abnormal conditions occur, the contents become putrid and constitute a "hotbed" favorable for the development of all kind of organisms ordinarily present in the intestines, besides many new, or extraneous, strains of bacteria.

These organisms and the toxins resulting therefrom, together with various chemical poisons, are absorbed and find their way along the ducts leading from the alimentary canal and in due time reach the blood stream. By this, they are carried to every part of the animal-organism, producing progressive degenerative changes in various organs, the cause of which is a mystery to those that know nothing about intestinal stasis and its relations to autointoxication.

Sir W. Arbuthnot Lane, probably the greatest authority on this problem, writes as follows:

"Obstruction to the normal onward movement of the alimentary contents, such

as kinks, bands of adhesions, dependent loops of intestines, displaced viscera, tumors, and many other conditions favor and produce intestinal stasis, so that in such conditions the intestinal contents stagnate or move on so abnormally slowly that fermentation and putrefaction produce an enormously large bacterial flora or form toxins which, by absorption, are distributed more or less extensively throughout the body".

This statement is very true; however, it should be remembered that intestinal stasis can, and does, occur without the presence of kinks, bands of adhesion or any abnormal formations.

Many writers hold that ptosis is the main cause of intestinal stasis, while others assert that stasis is a frequent cause of ptosis. Let this be as it may, we know that ptosis often is present without any stasis and that stasis is present without ptosis. We are also aware that many gastric and intestinal symptoms ascribed to ptosis, are, instead, symptoms resulting from stasis and disappear when the latter is cured.

There is one thing in this connection that we desire to impress upon the mind of the reader, and that is, that stasis does not necessarily mean constipation. We have seen several severe cases of stasis, and, consequently, autointoxication, in which there was no constipation. In one of these, there was a decided diarrhea. In other cases, constipation and diarrhea alternated.

Leslie says that, in intestinal stasis "the pelvic colon and the rectum may become greatly elongated (perhaps to twice its normal length), sagging along the floor of the true pelvis and capable of retaining the fecal matter for several days, even though a small section may be broken off and evacuated daily, thus giving rise to a false impression of normal bowel movements."

In our practice, acute autointoxication developed in a little girl of ten years. There was no sagging of the colon nor were there abnormal kinks, so far as we could discover, and, yet, shelled beans that were only partly cooked and badly masticated remained within the alimentary canal for ten days despite several brisk purgatives. Had this case not occurred in our own practice, we should have doubted the truthfulness of such a report. There is no doubt that fecal retention is not inconsistent with a daily action of the bowel; also, that the infrequency of the stools gives no certain evidence as to the existence of intestinal stasis.

The symptoms occurring in autointoxication are as numerous and as varied as the sands of the sea. We can not now call to mind a disease in which the symptoms are so varied in different individuals as they occur in this condition.

In some acute cases, and especially is this true of children, there is a sharp rise of temperature to 105 or 105.5° F.; but, this generally is of short duration. In the majority of cases, there is no elevation of temperature and many cases run a subnormal course.

In very young children, the picture is one of extreme prostration: features drawn, extremities cold, eyes sunken, and fontanelle depressed. Muscular twitching and even convulsions may be present. The mental condition is dulled, the patient often lying in a state of stupor. As we have said before, there may be either diarrhea or persistent constipation. If an evacuation occurs, it usually is very offensive, green in color, and often contains quantities of mucus.

Among adults, we seldom encounter acute cases, yet, every general practitioner meets with them now and then. There is marked headache, sharp pains are flying here and there, a peculiar light feeling about the head, and creeping chills and general malaise are complained of. The tongue is heavily furred with a white or brownish-white coat. The bowels are constipated, as a rule.

The majority of cases seen among adults are chronic in nature. The patient says he is not ill, yet, is not well. He is languid, has no ambition; headache and neuralgia are present nearly all the time; the back and limbs ache more or less day and night. Some patients complain of persistent pains between the shoulders, especially if they are lying down or sitting in one position. In some women, this pain under and between the shoulders and in the region of the short ribs is very trying and persistent; in others, the back, hips, and limbs are the special sites for the paints and aches.

Indigestion invariably is present, in some form or degree, in some cases of autointoxication. In others, the digestion seemingly is normal, but, the subjects can not gain any strength, although they may be eating

an abundance. Here we have faulty assimilation. Then, again, there is derangement of the body-chemistry. In many patients suffering from this disease, the liver becomes very torpid, their color is hard to describe, in fact, some of them have jaundice in full development.

Thus we could go on and on enumerating symptoms and conditions that are complained of in this disease known as autointoxication or autoinfection, but, we believe we have named sufficient so that the reader may recognize the true condition when he is called upon to make a diagnosis.

The treatment is both prophylactic and curative. The curative treatment is medicinal and surgical. As to the prophylaxis, it is much easier to prevent this condition than to cure it after it has been acquired. Prevention should begin in childhood. Every child should be instructed in the habit of daily evacuating the bowels. The habit once thoroughly formed, is not lightly to be neglected. They should also be told that a constipated movement day after day does not mean a healthy condition of the whole alimentary canal and will lead to trouble if not corrected.

Often, the proper selection of food will overcome this condition and prevent autointoxication. In adults, when constipation has become a fixed condition, there always takes place more or less absorption of toxic material. The patient is in a chronic state of autotoxemia, consequently, a bad state of health obtains. This condition being present, it only is necessary for an extra amount of toxins to enter the blood stream, when a typical case of autointoxication confronts us.

To begin the medicinal treatment in this class of cases, we know of no remedy more efficacious than the combination of calomel, podophyllin, and bilein, repeated often, until several movements have been secured, followed the next morning by full doses of a laxative saline or of magnesium sulphate. This should be repeated every morning for some time, but, in reduced dosage.

Bilein should be given three times per day and a granule of podophyllin and aloin at bedtime. When the physician has satisfied himself that the bowel has been freed of all offending accumulations, he is ready to begin treatment that will build up the patient's general rundown condition. If the habits are faulty, try to correct them. Change of employment often works wonders for patients that live sedentary lives. Look after all the eliminative functions. In the case of some patients, it seems almost impossible to prevent them from relapsing into the constipated state. Should you have on hand a case of this kind, you will find the following very serviceable: prescribe a good brand of mineral oil, 16 ounces, fluid extract of cascara, 2 to 3 ounces. One teaspoonful to a tablespoonful every night on retiring. Instruct the patient to take just enough of this to produce mushy stools. We have recently treated a patient in whom half a teaspoonful was all that was required. Patients that naturally suffer from a torpid liver will be greatly benefited by bilein taken three times daily. Also, do not forget the Bulgarian lactic-acid bacillus in autointoxication, for the purpose of rendering the canal as aseptic as possible.

Patients that drift back into constipation must, from time to time, be given a thorough cleaning out, for, if not, the disease will follow sooner or later. Patients having large or pendulous abdomens must be fitted with proper supports. Displaced viscera must be replaced by means of mechanical or surgical measures. Loops, kinks, sacculated conditions, abnormal growths, and kindred abnormalities must be corrected by means of surgical measures whenever practicable.

Even with all these methods, we find a patient now and then that will not follow out instructions for a sufficient time absolutely to correct chronic constipation, and, so long as this is present, there always is grave danger of autointoxication developing.

Nothing benefits this class of patients more than a thorough change of environment, occupation, and manner of living. Something to do that will get them out of the old ruts that they have been in so long; something that will clear their mental horizon and give them something useful to do. A few years ago, we had a patient that was a chronic sufferer from constipation, and, consequently, from autointoxication. He was always full of aches and pains, and was a chronic grumbler, as well; was actually a misery to himself and family; never had a good word for anyone. This man had spent forty-two years in his little store and for fifteen years he seldom left the shadows of his home and store. He always felt too bad to visit or to go to

church. Physicians had given him enough medicine to pickle him.

When we came into the case, it was very difficult to move the man's bowels with drugs—all the usual kinds had lost their effect except in heroic doses. We began to talk change, radical changes in his business and way of living. At first, he strenuously objected, but, we remained firm and offered advice. The store was turned over to his son, the old man went on the road for one branch of it—late in life, it is true, but, we wish you could see the improvement in his condition. The wife and children say he is a new man, out and out; a man with new viewpoints, broader ideas, and no longer a chronic grumbler. He no longer suffers from constipation and that long train of symptoms that follow in its wake.

We have seen many people cured of this condition by spending a few months at some springs. Most people believe that the water is responsible for this happy change, but, this is true only in part. The drinking of quantities of water is beneficial anywhere, but, the change of food and the manner in which it is cooked, the change of climate and scenery all have their beneficial influence; while, added to these, there getting away from one's self, living a broader life. All this contributes to the cure.

C. W. CANAN.

Orkney Springs, Va.

THE DRIFT TOWARD NATURE-CURING

It is asserted that about twenty million people in the United States practice drugless methods of healing. That is about one-fifth of our entire population, or one-third of the adults. A few years ago, only about one-sixth were adherents of these new doctrines. Further back, one-seventh, then, one-eighth, and so on. In the days of my young manhood, when I began studying medicine some fifty years ago, only an occasional "faithhealer" was heard of. If this drift toward medical nihilism continues a little longer, we shall become a drugless nation. In Boston, the home of Christian Science, it is said that druggists as well as doctors are fast being put out of business.

I mention these facts simply as indices enabling us to make a more correct diagnosis of the situation. Whether it suits us or not, wisdom demands that we adjust ourselves to these rapidly changing conditions. Unquestionably, the great world cataclysm now in progress will accelerate these changes.

In order that we may realize that this swing of the pendulum of civilization is not confined to the medical profession alone, it may be well to refer briefly to two other leading realms of human endeavor, namely, philosophy and religion.

"Philosophy is completely unified knowledge, while science is partly unified knowledge." This definition we have from that past master of the evolutionary philosophy, Herbert Spencer. The revolutionary effect of the synthetic philosophy of this "world's first great systematic thinker" is known to all well-read students of the science of humanity.

Applying this law to the solution of the problem before us, we find such facts as the following rapidly appearing in evidence. Back of and penetrating through all nature, there exists infinite intelligence, or mind. Indeed, we all live, move, have our being in, and are a part of a thinking universe. Everything is a manifestation of this cosmiosentient energy. The human entity ceaselessly receives this energy in the air, the ether, the water, the light, the food, and in other ways. It is for us to transmute this elemental life into healthy tissue, blood, bone, and muscle. It is for our wisdom to build it also into our mental machinery and to evolve sequentially a congeries of faculties constituting a microcosm, indeed, one that shall be perfectly correlated to the macrocosm—the greater world without.

It is self-evident that mind must exist in nature, else it could not become manifest in man. Something never comes from nothing. The lack or the imperfect adjustment either of body or of mind at any stage of our physical or mental evolution is certain to result in disease. Perfect adjustment must, logically, result in perfect health.

This supreme subconscious mind of nature without, constituting the microcosm, is the perfection of health as well as of wisdom, will, and love. It is the ruler in its own domain. All disease, then, of the body or the mind is abnormal and is due to our limitation of knowledge. It results in the mind having lost partial or complete control of some of its bodily

functions. Philosophy says that the tendency of all nature is toward perfection both of function and of manifestation of function in form. Mental and physical efficiency is normal. Inefficiency is abnormal and wrong.

The human body is a machine which the man within must learn how to manage. It is a laboratory designed to manufacture and to distribute properly all the serums and secretions it requires for perfect functioning. It can meet and master any emergency when given a chance. When man comes into the consciousness of this great truth and acts upon it, he will maintain both mental and physical efficiency. Among a rapidly increasing number of organizations, this philosophy is coming to the fore at the present time. Ernst Hæckel called it spiritualistic monism. The name matters not. It is, evidently, man's response to Kant's call of "back to nature."

The drift toward religious and ethical reconstruction is equally significant. Limited space will permit of only a few sentences on this subject—just enough to help settle the diagnosis.

Of all the European nations engaged in this unparalleled world conflict—Turkey alone excepted—about 79 percent are professed Christians in the Protestant, Greek, and Roman Catholic dominations. These professed followers of Him who came to bring "peace on earth and good-will to men" have had complete control of the education of the millions that have been slaughtering each other for now from fourteen to sixteen hundred years. They are, therefore, logically, primarily responsible for this reversion to barbarism. I used to say they have made monkeys out of millions, but, that would be slandering the monkeys. Monkeys have more sense than to treat each other in that way. It is said of these poor creatures that in their last international convention they were unable to find a language with which to condemn those humans engaged in killing and maiming each other.

Seriously, when such ecclesiastical facts as alluded to shall become more widely known, a better religious and ethical adjustment is sure to follow. It looks now as though the trend toward a religious type of pantheism, manifesting itself in the establishment of the brotherhood of man and nations, were rapidly setting in. In the last analysis, Christian Science, the great New-Thought cult, Theosophy, Spiritualism, Socialism, and several other similar movements are energized ethically by the concept of one universal mind, of which everything and everybody is an individualized manifestation. Religiously, surely, the most-advanced people everywhere will respond to the mighty cosmic urge felt by all for a gospel that will override all old barriers and bring forth a system of ethics that will forever remove the causes that naturally produce these soul-sickening cataclysms.

In this country, our trend toward religious reconstruction is most noticeable. Only about one-third of our population is found in the churches and membership is barely keeping pace with the increase of our population. A generation ago, church membership was increasing from two to three times as fast as our population. Our institutions being more plastic than they are in Europe, our readjustments will be less cataclysmic than they are there.

However, little need be said directly and concretely concerning medical evolution to make our diagnosis complete. The dictum of Immanuel Kant, who shook the world with his philosophy in the eighteenth century, as Herbert Spencer did in the nineteenth, was, "Back to nature." He might as well have said, "Forward to nature"; for, we must remember the celebrated definition of "nature" given by John Stuart Mill. "Nature," he says, "means the sum of all, together with the causes which produce them; including, not only all that happens, but, all that is capable of happening, the aggregate of the powers and properties of all things." With this, the greatest philosophers all agree. Remember, also, that nature is stronger than nurture.

How swift has been the evolution from the bleeding-, purging-, blistering-, sweating-, and puking-practices of our fathers to the fine and highly complicated ethical system of the present. My large pocket-case of alkaloidal granules is little less than a complete drug-outfit for all emergencies. Surely, it is the limit so far as drugs are concerned. Let us not deceive ourselves, though, with the thought that medical evolution ceases with these minute "arms of precision." Forward is the watchword: ever forward, "from the homogeneous to the heterogeneous," as Mr. Spencer has it. That means, of course, the knowledge of the use of nature's finer forces, just what

we are beholding in those new movements to which I have alluded.

In medical nihilism and preventive measures (for, all negations are but stepping-stones to affirmations), Dr. Wm. Osler seems to be in the lead in the profession proper. He says, "The new school does not feel itself under obligtions to give any medicine whatever." Many others from all the medical schools might be quoted in substantiation of this statement. Yale, Harvard, Johns Hopkins, besides several other medical colleges, have chairs of suggestive therapeutics or applied psychology. The Weltmer school of suggestotherapy has grown in nineteen years to enormous proportions. It has treated one million patients with success in all but three percent of its cases. The Supreme Court of the United States, in 1902, in deciding in favor of that cult's drugless methods, pronounced them "sound and practical . . . legitimate and lawful." From Osteopathy, Christian Science, The Unity School, and other naturalistic cults, similar testimony might be produced, if space permitted.

In philosophy, it is Monism, instead of Dualism, that has no place for miracles or the supernaturals. In religion and ethics, it is divine Immanence and a God of love, instead of anthropomorphism and an eternal hell. In medicine, it is psychotherapy, instead of drugs, in which, no matter by what one of the dozen or more names it may be called, the healer is only the agent or transmuter of the healing energy. In economics, it might have been shown that the trend to naturalism is equally manifest in the rapid rise of the social democracy in place of capitalistic monopoly the world over. The Kaiser of Germany admitted he brought on the great war in order to check the growth of Socialism. This is known to all unprejudiced students of current history. If we are wise, then we shall adjust ourselves to the cosmical trend of these great evolutionary forces. Together, they evidently constitute the voice of God speaking to us in trumpet-tones.

S. J. Brownson.

Ft. Worth, Tex.

WHAT DO YOU REALLY KNOW ABOUT HEALING THE SICK?

A physician may have spent four years in a medical college; he may have received the degree of Doctor of Medicine; he may be a legalized practitioner of medicine; he may be a member of one or more medical societies, a professor in some medical college, but, what does he really know about healing the sick? When a doctor is graduated from a medical college, he is "supposed" to know the cause, symptoms, and treatment of several hundred diseases; but, how many can he actually cure?

The professors in our medical colleges have a fearful responsibility on their shoulders; for, it is their business and it should be a matter of duty with them to see to it that the young men and women that yearly are sent out from the medical colleges in large numbers are prepared to treat successfully the diseases prevalent in our country. Of what real value are all the courses of instruction, if they fail to teach the students a definite treatment for the diseases that are more or less common to our country?

A stream is no higher than its fountain-head: if a professor in a medical college is himself unable to treat successfully the diseases prevalent in our country, it is obvious that he will be unable to impart healing-skill to his students.

A physician's reputation is based, or should be based, solely upon the cures that he effects. His usefulness in any community depends upon his ability to heal the sick. I know, from an extensive experience and observation, that the average physician in this country is weak on materia medica; he has only a superficial knowledge of the subject. Some of our medical colleges have cut out materia medica from their curricula. Thus it is that our young men and women are being sent out into the world to practice medicine without possessing a knowledge of the definite curative action of drugs; they are handicapped in their treatment of the sick, for the simple reason that they have not been taught a definite treatment for the diseases they are certain to meet in everyday practice. Is it any wonder, then, that, with this kind of teaching, so many of our doctors become disgusted with the practice of medicine and finally become medical nihilists or drugless healers?

The medical colleges that fail to teach definite medication to their students, as well as those medical colleges that declare there is no such thing as a definite medication for diseases, by eliminating the chair of thera-

peutics, are largely to blame for this condition of things.

It is the custom of the merchant every year to take an account of stock, to determine its quantity and value and thereby his yearly profit or loss. It would be a good thing, likewise, for our doctors to take an inventory of stock to find out how much they really know about healing the sick.

Now suppose that an epidemic of pneumonia, typhoid fever, infantile paralysis, cerebrospinal meningitis or grip should sweep over this country, are you prepared to treat each of these diseases successfully? If not, then it is your duty, as a physician, to fit yourself to treat the diseases named successfully, or else you have failed in your duty to suffering humanity. You can not plead the excuse that you do not know how to treat such cases successfully or that you were not taught how to treat them in the medical college from which you graduated. There are textbooks that will tell you how to treat such diseases successfully, and it is your business, as a physician, to study them and be prepared to meet these diseases, as well as others—and cure them.

Suppose you were suddenly called to a case of tetanus, hydrophobia, blood-poisoning, gallstone colic, uremic or puerperal convulsions, would you know how to treat and cure such cases? You know our country is being taught the lesson of "preparedness." So, likewise, it is up to us medical men to learn our lesson of preparedness and develop the necessary skill to cure the diseased conditions that may arise in everyday practice. There are many other diseases that may be met with at any time, and a good physician should be prepared to treat all such cases successfully.

In this article I purpose to present diseased conditions to the reader as they may be met with in everyday practice. If a doctor is able to treat these conditions successfully, it is a pretty severe test of what he really knows about healing the sick. When a doctor knows his materia medica thoroughly, he will know definitely what to do for a sick person. It enables him to prescribe for the sick rapidly, intelligently, and successfully.

Theories may change, fads may come and go, but, the true, the definite indications of a remedy never change. They are the same yesterday, today, and forever.

We prescribe a remedy because it is *the* remedy *indicated* in that *particular* case. We expect results, and we get them. That does away with all guesswork and uncertainty; it reduces the business of prescribing for the sick down to an exact science; and *that is* what we mean by *"definite medication."*

You may be called to see a sick baby. The mother may say to you: "Doctor, this little boy won't give me any peace; he cries all the time. The only way I can keep him quiet is, to carry him; the moment I put him on the bed, he starts to cry." There is one remedy indicated, which, if administered, will quiet that child, and give the mother rest. Do you know what it is? Don't give the little baby any "dope," but, give it the indicated remedy.

A woman may tell you that she flows too much at the monthly period; that as soon as she gets up in the morning, she starts to flow. The blood is dark, tarry, passing in clots. Upon examination, we find inflammation of the os uteri, a thickening of the cervical canal, which is as hard as cartilage, with retroversion. She has a yellowish, fetid leukorrhea between the periods. We call it chronic metritis. The condition indicates one remedy, and that will cure her. Do you know that remedy?

Men at or past the middle age sometimes are troubled with chronic enlargement of the prostate. Many physicians send such patients away to the surgeon, to be operated on. The above condition indicates one remedy. If you knew that remedy, and used it wisely, you would have many such cases to treat.

One of the most common diseases we find is, spinal irritation (spinal hyperemia), but, the average doctor can not diagnose it nor treat it successfully when he sees it. A cure of one such case will often make a doctor's reputation in his community. Do you know how to treat such cases? Very likely not, for, you were not taught in the medical college you attended how to cure spinal irritation.

The most common condition met with in everyday practice is, indigestion, and the symptoms will be as follows: An hour or two after eating, the patient will have a sour taste, pressure in the stomach, bloating; he feels as if his clothes were too tight; wants to unloosen his clothes. This is an American disease and every doctor should know how to cure it. The above group of symptoms point like a fingerpost to one remedy, and the doctor who *knows*

his materia medica will readily recall the remedy.

Intercostal neuralgia is another very common disease, but, very few physicians know how to cure it. You will meet such patients that have been the rounds of the doctors, and they may come to you, hoping that you will be able to cure them. The condition indicates one remedy, and that remedy will cure the patient so quickly that it will please you. Can you name this curative remedy?

You may have a case where the anus is cracked and fissured; piles protrude, bleed, and are very sore. The patient walks the floor in agony of pain for an hour or two after each stool, even after a soft stool. This is one of the very cases where a doctor needs just the right remedy to cure and thereby gain the confidence of the sick person. This condition points directly to one remedy, and you, doubtless, know that remedy?

You may have under treatment a case of chronic diarrhea in an old lady. She feels a desire for stool in the morning as soon as she gets up and moves around. The passage is sudden, urgent, gushing, painless, with much flatus, and of a brown color. You will like to cure such cases when you meet them, and your patient will appreciate the cure. This condition calls for one remedy, and that remedy will cure. Can you give the name of this remedy?

Ferrum is often prescribed in anemia when it is not indicated, and, as a result, your patient does not improve. When ferrum *is* indicated, you will know it by reading the face, tongue and pulse of the anemic patient. The face, tongue, and pulse tell you definitely when ferrum is indicated and when it will cure your patient. Do you know the definite indications for the remedy ferrum?

In reading the pulse of a patient, you may find quickness of the pulse, without strength. The patient complains of weakness more than any other symptom. It indicates one remedy—do you know what it is?

In reading the pulse of a person at or past the middle age, we may find it weak, with a marked interval between the pulsations. This peculiar character of the pulse warns us that paralysis has already taken place some time previously or is about to take place, and it points to one remedy. Do you know what it is? The knowledge may be the means of prolonging the life of someone near and dear to you.

Women at the menopause may have hot flashes, weakness, and perspiration. This condition calls for one remedy, and that remedy will help them from the start, for, it is the remedy indicated. Such cases are so common that every physician should know how to cure them.

A large majority of cases of displacement of the uterus are caused by enlargement of that organ; the uterus sags down from its own weight. There is one remedy that will reduce the enlargement of the uterus and help you cure your patient. You should know what that remedy is.

An old lady may consult you about a delicate condition. She will tell you that every time she coughs, sneezes or laughs the urine passes involuntarily. This indicates one remedy, and when you cure such a case your patient will appreciate your skill.

It is success in curing the little things, the simple ailments of your families that helps to make you solid in any community. Every cure you make binds the people more closely to you.

You may be called to a case where a man has had a fall or injured his head in some way. The patient suffers from mental trouble since his injury. This indicates one remedy. Can you name it?

You may have under care a case of anemia, where the pulse is rapid and intermittent. The patient eats well, but, is losing flesh. This kind of pulse, with the other conditions, calls for one remedy. If this is administered, your patient will get better from the start.

When you see a patient with bloating of the upper eyelids and also, the swelling of the ankles; the patient has to get up in the night to urinate. This means kidney trouble, and it points unerringly to one remedy.

The above are just a few cases, taken at random, that are liable to occur in any physician's practice, and it embodies a fairly stiff "quizz" to find out what he really knows about healing the sick.

To be a physician, is, to *know* the *materia medica;* not the materia medica of *one* school of medicine, but of *all*. When we know the whole materia medica, we have an infinite resource to draw from in our battle with disease. Over twenty-five years ago, I realized what our medical colleges were *not doing* for their students, and that our doctors should be taught, first of

all, the *definite indications for remedies;* also a definite treatment for the diseases they meet in everyday practice. It was then that I began to teach physicians, and I have continued in such work ever since that time. I have never tried to convert a doctor to any system of therapeutics. All I did was, to try to help him become a better physician, to help him do more for the sick than he had been doing. My book, "Definite Medication," was given to the profession in 1910, to serve as a guide in the definite treatment of the sick. It is now used as a daily reference work by doctors in every state of the Union and in thirty-five foreign countries.

What I have written is a heart to heart talk with my readers, based upon an experience of almost half a century in the practice of medicine. It is an honest opinion of one who loves his profession, one who loves his fellow man; from one so broadminded and bighearted that he can recognize all physicians as brothers and extend to them the right hand of fellowship.

ELI G. JONES.

Buffalo, N. Y.

PREVENTING LOSS OF COVER-GLASSES AND SLIDES

My method of cleaning cover-glasses and slides is quick and requires no heat, thus saving almost all of them—quite a consideration now, when they are so expensive. I use a new glass staining dish with cover and which has places for slides. Fill it three-fourths full with denatured alcohol. Then you can place about 10 slides, on their ends, in this dish. Let them remain about an hour, covers and all, just as they have been taken from the microscope. Drain the excess of alcohol back into the dish. Rub your dry fingers on a cake of wet hand sapolio and smear the soap well over the slide or cover-glass. Then wash off clean in warm running water and dry with a coarse towel. The denatured alcohol can be kept in the staining-dish, thus being ready for use at any time. No scratches are left on the glass after cleaning.

ALDUS A. HOOPMAN.

Seattle, Wash.

SOME POINTED PARAGRAPHS

A plea to citizens to be thoughtful in the calls made upon their physicians in these days of stress has been made by the East Side Physicians' Association, says *The Detroit Medical Journal* for June. Their statement is as follows:

"Many physicians are being called to war. The additional work is being done by those that stay at home. The cost of practicing medicine has been doubled; but, for patriotic reasons, your physician has not raised his price. You can help him do 'his bit' and benefit yourself by complying with the following suggestions:

"1. Put in your call early in the morning. (You will receive more prompt attention and the doctor can save time enough to care for several more sick patients.) (2) Do not call your physician in the evening or at night, except for emergencies. (A day-call will cost you less, get you well sooner, while your doctor can not give you his best skill unless he has had a good night's sleep.) (3) Do not ask your doctor to 'come at once', unless it is really an emergency. (Someone else may be in real need of his immediate attention.) (4) Pay cash, if possible. If you must ask for credit, do not expect long credit. (You get your pay promptly. Why shouldn't your physician? He can not get the long credit extended to him that you ask. Remember that the prompt-pay-patient gets the efficient service.)

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I want to say a good word for the nursing sisters at the casualty clearing stations, We call them sisters over there. That does not mean that they belong to any special order. It simply means they are trained nurses, and, whether they come from London or Edinburgh, Chicago, New York, New Orleans, St. Louis, or Memphis, they are sisters, and they are giving the most splendid service that anyone could imagine. As I have tried to express it in some of my lectures, if they are not the salt of the earth, there is no such thing . . . . I have seen them caring for the wounded at Lemnos; I have seen them doing the same thing in Egypt and in France; I have seen them rendering heroic service from a casualty clearing-station to the discharge depot, and there is no tribute I can lay at their feet other than to tell you of the splendid service rendered to the soldiers. And their governments will, surely, not forget them in the day of peace. I have seem them in the cold, when

they had to dress in the cold, go to bed in the cold, and no fire, not a bit of it, for weeks together in that chill northern France. You now know what I mean when I speak of the nurses working in the cold. They never complain. They stick to their work, giving their very best efforts.—(Major W. J. Bell, in *Jour. Tenn. State Med. Asso.*, June, 1918.)

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The number of deaths among the soldiers in the camps and cantonments in the United States in the last six months is less than it was among the people of the same age in civilian life—5,000 deaths in round numbers, in our camps and cantonments; which makes an annual death rate of 10 per thousand, while in civilian life the deaths for the same ages—from 21 to 31 years—have been, during the same time—12 per thousand. But, we are not satisfied with this. If possible, we are going to reduce the death rate still more.

I hold, and I think all will agree with me, that this surpasses anything that has ever been done in the history of war. No troops can be assembled, especially when they come raw and green from their homes, without a great deal of sickness and a more or less exaggerated death rate. Of course, you understand that the death rate among the soldiers—more or less selected men, as they are—should be a little less than among the same age in the civil population.—(Lieut.-Col. Victor C. Vaughan, in *Jour. Tenn. State Med. Asso.*, June, 1918.)

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Women physicians, to the number of 1,875, have voluntered for military service, if needed, and a few have been accepted. The Council of National Defense states that more than one-third of all women physicians have formally listed themselves.

The Rev. James M. Gillis, of the Paulist order, speaking in New York, gives this definition of a pacifist:

"Jesus Christ is the Prince of Peace; but, Pontius Pilate was the Prince of Pacifists. He washed his hands, as they do, of the right and wrong of the whole matter. But, while washing his hands with water, he was drenching his soul with blood." And, again, "If my neighbor calls 'Help! Murder!' in the night, and I bury my head in the bed-clothes and pretend I hear nothing, I'm a pacifist. And, incidentally, I'm a liar and sneaking coward."

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We learn that Walter B. Swift, A. B., S. B., M. D., of Boston, has just been appointed Consultant for Speech Defects to the Division of Medical Inspection of the Public Schools of Cleveland, Ohio He is engaged in installing methods in speech correction by directing some 15 teachers to conduct speech correction classes. These teachers he trained up last summer to do this work.

This is highly important work, and we congratulate Doctor Swift on this recognition of his long continued researches.

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The individual that takes advantage of conditions existing now and attempts to profiteer out of the war is an alien enemy, should be treated as such, and should be shot at sunrise. The man that attempts to profit out of soldiers' clothing; the man that attempts to get a corner on food; the man that seeks, in any way, to make undue profit out of any business with the government is a traitor to his country and should be treated as such.—(Lieut.-Col. Victor C. Vaughan, in *Jour. Tenn. State Med. Asso.*, June, 1918.)

After the World War

LETTERS FROM FRANCE—VII*

The emplacement of the last big Bertha gun, installed to fire upon Paris, has been found in the Corbie Wood, in the vicinity of Beaumont and Cugny; and the emplacement was just as had been indicated on photographs taken by aviators, the gun, of course having been removed.

This post, situated on the western edge of the wood, consisted of two parts; the emplacement for the real gun and another one for a dummy cannon. The two are identical, each having a three-compartment pit twelve meters long and two meters deep. The gun revolved on a circular platform. Curiously enough, the dummy gun was camouflaged, while the other was not. The Bertha was connected with a normal-gauge railway-line and between the rails of this track was a narrower one for the shell-trucks. Close by were shelters for the gun-crew, formed of tree-trunks and covered with a layer of earth and concealed with branches.

The Bertha that really did the firing appears not to have been touched by shells from aircraft, some, though, had fallent upon the camouflaged emplacement. The distance from this gun-emplacement to Paris, where shells fell once every half hour is 69 miles.

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At the Folies Marigny the "Follies of 1918," an American production will have its European première. American songs, American music, American comedians, American chorus-girls are all on the program and Mr. Edward B. Perkins, the American producer of the "Follies," promises to present the nearest thing to Broadway that Paris has ever had in this direction.

The Follies of 1918 is an American show for Americans, while the Folies Marigny, one of the most attractive theaters in Paris, has been Americanized throughout. The tipping-system of the French theaters has been abolished and, although unable to do away with the selling of programs, because of an existing contract, they at least were able to keep the tickets out of the hands of speculators.

The "Follies" has the real Broadway atmosphere. From the Winter Garden, comes Billy Howard, the comedian, with his lively American fun; also Johnnie Fields, the black-face comedian, who was with the Ziegfeld Follies. The show opens at 8:15 p. m. Two box-offices, one for American patrons and the other for French, are open during the day. Seats are selling four weeks in advance. To prevent excessive charges, the after-theater taxicab-service will be under the supervision of the Folies Marigny management.

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With the opening of the American offensive in the St. Mihiel sector, the machinery of the American Red Cross was immediately put in motion. With each division engaged, was an organization equipped to render aid to the soldiers going into the fight and to meet those, that would come back to the dressing-stations and field hospitals, with hot drinks, cigarettes, and other comforts.

The men composing these division field organizations have not stopped work since the bombardment all along the front began at 1 o'clock on Thursday morning. Their rolling kitchens have followed closely the rapid advance of the Americans. In some cases, field hospitals were on the move forward by Thursday noon, accompanied by the American Red Cross outpost service, whose supplies were hastily loaded on trucks with kitchen-trailers coupled up and were steaming along the roads of the advance. From there, came to the American Red Cross warehouses in the advance zone rush orders for supplies to the forward points; sometimes they were accompanied by brief penciled reports mentioning such incidents as the serving at a certain point of a hundred gallons of

*It is to be kept in mind that this letter was written before the armistice was signed, and while active fighting was going on.—Ed .

hot chocolate between daylight and 9 o'clock in the evening. At another place, 120 gallons of hot chocolate and 6 big sacks of bread were served to the men that had reached their objectives hours ahead of the schedule and were feeling the pangs of hunger after their victorious ten hours of fighting.

At the evacuation loading-platforms, newly established canteens carried on the work for the wounded that had been begun at the dressing stations. Thermos containers of hot drinks were sent up to the front by the ambulances bringing in the wounded. For two weeks or more before the attack began, enormous quantities of beds, blankets, pajamas, bathrobes, as also medical supplies had been delivered by the American Red Cross warehouses and hospitals. To regulate the distribution of these supplies, the army medical service virtually took over all the American Red Cross resources for the time being and determined where they were most needed. At one point a 1,200-bed hospital was completely installed in two days, as a measure of extra precaution. The call from the army for this installation came at 11 o'clock one day last week and at 11:10 o'clock ten camions were being loaded with the necessary equipment.

By a system of day- and night-visiting of field and base hospitals, emergency needs could be learned about and quickly met. As the battle progresses, the American Red Cross organization is reporting that its posts will be 10 or 12 kilometers from the points where they were established just before the opening of the offensive.

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The American women physicians that have come to France with the "Women's Overseas Hospitals" under the National American Women's Suffrage Association are making a name for themselves in France and, indeed, for American women in general.

The first commissions that the French Government has issued to American women physicians have been given to three surgeons of the Women's Overseas Hospitals. Dr. Caroline Finley, Dr. Lee Edward, and Dr. Anna Sholly, who have been engaged in work in a French hospital at the Chateau d'Ognon, near Senlis, since last April, have been made first lieutenants in the French army, and this on the heels of their receiving the croix de guerre last week. One of the nurses of the same unit* has accomplished excellent work, the repeated citations of this unit showing that its members have been brave and courageous while performing their duties under fire. While working in a French hospital, the members have been able to do a great deal for our own men, as many American wounded were received at the chateau during the summer.

The first unit of the Women's Oversea Hospitals arrived in France last March and was immediately put into action by the French Service de Santé. A second unit is doing refuge work near Bordeaux, while the third unit has recently arrived in France and has been assigned to work in a French hospital for gassed patients, near the front. While waiting to be sent to this hospital, the members of the unit are being instructed in the care of the gassed patients in Paris. They have been visiting the various gas-hospitals during the past few days and expect to receive further instruction next week.

Military Unit No. 1 is under the direction of Dr. Caroline Finley; No. 2, at Labouheyre, is under the direction of Dr. Marie Formad, while Dr. Marie L. Lefort is the director of No. 3, for the treatment of gas-cases.

The Women's Overseas Hospitals had made a splendid drive for funds in America, and, according to the amount raised, backed by the talent of these women physicians, who have been so readily recognized by the French government, the organization is prepared to accomplish further good work in France. Mrs. Charles L. Tiffany is the chairman of the committee in America and Mrs. Raymond Brown is the general director in France.

While these women are the first American women surgeons to receive commissions in the French army, the work of other American women has been recognized by the Government in a similar manner. Last winter, Miss Katherine Baer, of New Jersey, an assistant in a hospital near the front, was made a corporal in the 137th Regiment of Infantry. Miss Baker had cared for the wounded of this regiment. As this regiment had been decorated with the croix de guerre, Miss

*Miss McKeen also received the croix de guerre.

Baker now wears the cord over the left shoulder, this signifying the fourragère of the croix de guerre. There is still another American woman, whose name is not known, who has been attached to the French army.

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As already has been announced, the Y. M. C. A. has rented the Palais de Glace, on the Champs-Elysées, for boxing and other entertainments, and one night each week will be given over to the glove-artists. It is proposed to put on a program next week, probably Wednesday night. The committee appointed to handle this sport is an excellent one, including men who have had experience in promoting this amateur game. F. W. Stone, of the Y. M. C. A., has been appointed match-maker, and he will lend to the enterprise the experience gained with the Chicago A. A. and elsewhere.

All of the talent for the shows will be provided by members of the A. E. F. The committee's idea is, to develop many good amateurs, rather than to exploit a few professional stars. Large gloves will be used and the bouts will be short, so that the greatest possible number of men may have a chance to show their skill. A good "windup" card, involving men that have had professional experience, will be a feature of each program, if it can be arranged. Lieutenant Gargan is chairman of the boxing-committee.

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About two weeks ago, General Pershing paid the American Library Association the unique compliment of granting it the franking-privilege, for its books, in the United States Army postoffice in France; thus placing the capsheaf on the service which the A. L. A. is building up for members of the A. E. F. Granting of this privilege means, that any member of the A. E. F. may now write direct to the Paris headquarters of the A. L. A., at 10 rue d'Elysée, for any book he wants. The book can be sent him and then returned, postage-free.

Heretofore, the work of the A. L. A. has been confined to placing collections of books with individual military units and in Red Cross hospitals, Salvation Army cabins, Y. M. C. A. huts, Y. W. C. A. hostess houses and Nurses' Clubs, Knights of Columbus centers, and all other places that offer recreational opportunities to members of the A. E. F. All of these organizations have cooperated most heartily in this service, and about 300,000 books already have been distributed.

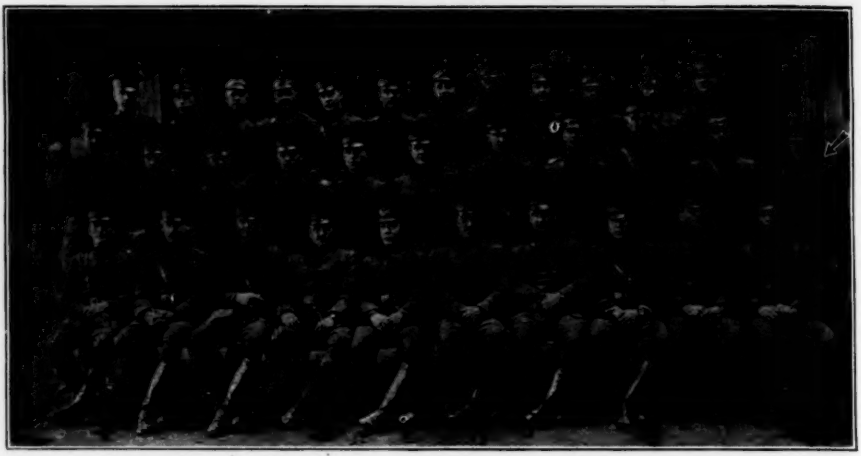
However, from the first inception of this work, the ideal of individual service has been in the mind of the European representative of the A. L. A., Mr. Burton E. Stevenson, and the granting of the franking-privilege renders this immediately possible. Details were at once worked out and a reserve collection was established at the Paris headquarters, from which these special requests can be filled. All books thus sent out may be retained one month, and the men are made to understand that the success of the entire service depends upon their playing the game and returning the books promptly; that the success of the whole undertaking lies in their own hands. Special mailing-cartons will soon be ready, so that this shipping can be done with a minimum of trouble.

Not one request in ten is for fiction. Virtually all of them are for textbooks, technical books, and books on serious subjects, either for the purpose of continuing studies begun at home and interrupted by the draft, or, for gaining a more perfect knowledge of military technic. "I should like to procure a first course in algebra," writes Private McAlpine, of Company B., of the ——— Regiment. And he gets it.

Writes Private Cohn, of Battery E., —— artillery: "No gladder news could have been conveyed to me. The most sensational feature of your work is, your success in obtaining from our revered Commander-in-chief the privileges of our army postal service. I am not very fond of fiction, but, should give anything in the world for a copy of President Wilson's letters and addresses." A copy of the President's war-addresses was sent him.

"I am hungry for something to read and study," writes Private Lorimer, of the —— Train. "I should like to read Carlyle's "French Revolution" and Muensterberg's "Psychology, General and Applied." He got the Carlyle, but, the Muensterberg was beyond the present resources of the library.

"My favorite authors are Washington Irving, Oliver Goldsmith, and George Eliot," writes Corporal Carlin, of the —— Division. "The greatest deprivation I have



Medical Officers at Base Hospital 101,
St. Nazaire, France. Captain Robert C. Murphy indicated by the arrow.

felt in my nine months of active service is the lack of books," writes Corporal Cort, of the Marines. And he asks for Thackeray's "Pendennis."

"I was engaged in the banking-business at home and wish to spend my evenings improving my knowledge along this line," writes Corporal Connolly, of Company 17, Motor Mechanic regiment. And so it goes, request after request.

Many men ask for books on mathematics, others for books on shorthand, still others for technical books of every description. It already is apparent that the shipping-quarters opened by the A. L. A. at 10 rue d'Elysée will be far too small, and plans are under way to enlarge them. It really is a great educational program that the A. L. A. has started, one which promises to be among the most important features of the A. L. A. work among our soldiers in France.

The U. S. Army Ambulance service Headquarters has been informed that a number of its men that were captured a few months ago have been reported by the Red Cross to be in German prison-camps. The following men are at the prison-camp in Cassel: Alfred P. Jones, of S. S. U. 524; H. V. Jordan, of S. S. U. 506; W. P. Merget, of S. S. U. 621, and E. E. Larson, of S. S. U. 524. A postcard has been received, by friends, from Frederick G. Lockwood, of S. S. U. 621, who also is a prisoner in Germany and he writes that he is well and that six other American ambulance-drivers are captive in his camp. "We should be glad to have soap, canned goods, tobacco and chocolate," he writes. Mr. Lockwood's address is Compagnie s. p. Nr. 3264, Gefangenenlager Langensalza. Via International R. C., Berne, Switzerland.

The reports from the various sections of the Ambulance Service all along the line are most interesting and show that the Ambulance drivers have been in the thick of the fights, and, while some of them have been taken prisoner or have had their cars shot to pieces, as a whole, they have come out with flying colors and are eager to be in the next attack.

Another section of the U. S. A. A. S. has been doing excellent work recently, according to its army citation. S. S. U. 633,—under the command of Lieut. Walter Ives and Lieutenant Fabre, of the French army, and the American Sergeants O'Brien and Rich—has been cited for its "heroic courage and extraordinary bravery in a certain battle while reaching the postes de secours and evacuating the wounded under heavy fire."

B. Sherwood-Dunn.

Paris, France.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

[*Continued from February issue, page 160*]

CHARLOTTE BRONTE, in "Vilette," bravely alludes to the strange perversity of mind that leads us to regard with indifference or even with consummate pleasure an obloquy in quarters when we can expect no fair interpretation. We need not arrive at this degree of cynicism, yet, without question, the secret of one of the most living attractions of society is the thought that, whether we encounter in others dissent or approval, sympathy or hostility, we are to some extent measured by the standard of excellence we ourselves have established. We can not claim immunity from criticism and rebuke, yet, the grounds for their exercise must more or less coincide with the canons of taste and propriety.

But, what soul *can* know another? Throughout life, we peer into the darkness that veils from our imploring eyes the mystery of our own identity: how, then, may we presume to penetrate the motives and intuitions that contribute to form the character of our dearest friend? Still, as in friendship, in proportion to our capacity of reading readily the hidden constituents that mould the harmony of the assembly, and in ratio to our knowledge that the mask we habitually wear may be freely discarded in the absolute sincerity of the highest relations, will our love for society be enhanced.

The doctrine of affinities, so finely presented by Goethe, deals largely with the congeniality of souls. To a kindly nature and skilled perception, all human souls are congenial, for, there is none so meager in virtue and merit as not to claim some regard on the part of a reflective mind. But, there must be no dissembling if we would attain the rarest sympathies among men. "How mortifying is it," says Emerson, "in those from whom we expected a brave attitude to find only a mush of concession."

Should we stand courageously forth in the candor of our convictions and speak the truths that are in us, our boasted society would, I fear, be speedily dismembered. I have known a young man of cultivated perception of beauty who, in conversation with a city belle, compared the eyes of one of the company to those of an Alderney heifer, and who forthwith was accused of inexcusable rusticity. The taste of the remark may be questioned, yet, had his companion read Homer or observed for herself, the compliment deemed worthy of divine Juno would not have horrified her.

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We can not, in adopting our conversation and manners to others, be too zealous in preserving that individuality of thought and independence of expression without which the vital charm of society is lost in indiscriminate surrender of ourselves and thankless uniformity. Each snow crystal of the millions that fall is, in itself, an exquisite delicate type of the beautiful, as marvelous in symmetry and design as Tennyson's seashell—merged in the mass, they become shapeless and unlovely. But, if the desire to please has its proper limitations, dictated by fidelity to self, it is no less true that an unreasoning antagonism is subversive of the happiest intercourse.

There are members of society whose characters are best portrayed by the expression of Shakespeare, "I am nothing if not critical;" and, surely, there are few things more lamentable than the inimical tone, verging upon misanthropy, that confronts every advance we make, surrounding itself with a nimbus of unapproachable austerity. It is often the prerogative, if defect, of genius to assume a lofty contempt, as if to say, "Stand off from Jove!" but, in circles wherein the blight of mediocrity falls with unsparing justice, we can ill afford to assert a higher privilege than is the common fortune of mankind. Modesty in our declarations, deference to opinions at variance with our own, and an

equitable regard for the sensibilities of others, these are ornaments with which no dogmatism, however brilliant, can compare.

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And here let me speak of conversation, the series of charmed links that weaves itself mysteriously around the community of thoughts and feelings expressed in society, but for whose friendly power we should walk this lonely world like shadows, girt with a silence more awful than that which aeronauts describe at the height of three miles above the earth, where, as Tissandier writes: "Not a bird is seen, not a sound is heard, not a vestige of the planet breaks the appalling monotony of the upper air." The French are justly considered masters of this most difficult performance, and the *art* of conversation, if its attainment may be regarded esthetically, is with them carried to great perfection, partly through the facility of a language remarkable for politeness and flexibility. I think few of us, even the most imaginative, would be impressed with the artistic element in the varied and spasmodic communications audible in an average smoking-car or country grocery, the purport of which leaves us strangely in doubt as to the wisdom of conferring the distinction of speech upon man. Yet, albeit we oftener are ready talkers than good conversationalists, there exist, in American society, in our growing culture, in our keenness of perception, our freedom of expression and genial sense of humor, the finest qualities requisite for well-bred, intelligent intercourse. It seems preposterous to speak when we have nothing to say; yet, this is the very demand of society; that we shall impart as well as receive pleasure, and nothing, I imagine, can ever make us regret the gift of speech so much as the bewildering task of striving to entertain for half an hour a human being to whose mind the propriety of vocal expression seems never to have occurred. Charles Lamb cites as an instance of English reticence a crazy toll-keeper shouting to a wayfarer, "How do you like your eggs, Sir?" to whom the stranger deigns no present reply, but, ten years after, passing the same spot, answers, "Boiled!" It has been my fate to address one or two individuals the possibility of whom answering, even after ten centuries, is remote.

"Speak from the heart" is the wise motto, but, in mixed company, this will never do; and the current disparagement of natural ardor and the alarming increase of state lunatic-asylums warns us to converse from the head alone. Still, the old adage is true that, if we have aught in our inmost souls that sighs for utterance, the gods will bid us declaim, and wherever the oracle of sincerity and truth is spoken it will be heard. "Speech is silver, silence is golden"—true enough in rare moments, when feeling masters all expression, but, the maxim is offset by the scriptural text concluding, "when he holdeth his peace."

I have often observed in society the "Still waters" that "run deep." Certainly, there is a noble art of silence to be cultivated and admired, yet, we should remember that still waters often are stagnant, and a habitual reticence where stirring themes are in question by no means argues wisdom.

Conversational power, however, appears to be rather a gift than an art. Talleyrand, Chesterfield, Coleridge, Macauley, Leigh, Hunt, and their peers were exceptional in this respect, and, probably, could our own Hawthorne have uttered what was passing in his marvelous mind, his store of fancy and insight would be seen to outrival theirs. I am well aware that the subject is distasteful to our American ears. We can not understand that speech should be a matter of reflection and care. Our fluency in ordinary affairs, on 'change, in the caucus, and upon lines of travel injures our good taste in company and we associate with studied diction a degree of artificiality hardly in consonance with our somewhat ill-defined notions of freedom.

It is not quite thus. While rhetoric alone impairs the force of discussion and mars the spontaneity of good conversation the ability to convey our thoughts in precise and adequate language should always be a coveted attainment. Yet, study, in itself, seems but a factitious method for the acquirement of so estimable an art: there must be, underlying all interchange of thought, the genuineness of feeling and experience, and the best conversation will be marked neither by brilliancy nor learning nor wit, but, simply by suggestiveness: the stimulus of our highest faculties, which enables us to share the speaker's gift, so that to be a good listener is often the secret of the rarest social and intellectual enjoyment. "Consider not who said this or that," says Thomas a Kempis, "but, mark

what is spoken"—though the terms of the maxim may at times be inverted, without violence to truth.

I think that what often makes society dull and awkward is a lack of honest enthusiasm. The realistic tendencies of the day have a chilling effect upon the sincerity of natural emotion. Our parlors are awed by preraphaelitism. Poets we have foresworn: they are only poetasters: and, in place of frank, true-hearted sentiment we recognize only sentimentality, stigmatized by the vulgar epithets of "gush" and "slopping over."

What are we coming to? Is man, then, but a finished automaton, a miracle of organized forces, a curious mechanism composed of nerves and vascular tissues, lymph, bile and the like? Is the intellect, which Plato called the helm of the soul, only a brush of cerebral ganglia; the liver, as has been humorously suggested, quite as likely to be the seat of affections as is the heart; and are all the divine aspirations of the spirit crushed in the crucible of science? "Slopping over," indeed! All the good and great, all beauty and heroism have been "slopping over" since Prometheus breathed fire into the heart of man. Socrates, Mencius, and Buddha "slopped over," and Jesus of Nazareth, and Savonarola, and Luther, and St. Bernard, and Wesley, and Howard: yes, and, that mankind might witness the fulness of heroic devotion that runneth over in a country's cause, Leonidas, Tell, Burke, Washington, Mazzini, John Brown, and Lincoln all "slopped over," and a host of glorious women, from Cornelia to Barbara Fritsche. Is the heart a thing to be ashamed of? Is the voice of earth's music to be hushed forever simply because it melts us to tears?

But for a blessed world of "gush" in bygone decades, who of us would now be present to consider these themes? Soon you will hear from yonder wayside bough a sparrow's lay that seems to whisper to an ideal world and wakens in the dullest fancy some lingering vision of the beautiful, some haunting sense of loveliness perchance never realized till now: is not God's herald "slopping over" with innocent ecstasy? True, there is a certain weakness of intellect, a premature softening of the brain discernible here and there in current literature, but, there is more to be dreaded from passionless propriety than from the excess of imagination; for, to the imaginative faculty, must ultimately be referred the source and motive of all high moral action, nay, the *primum mobile* of all, as the dialog in Goethe's masterpiece declares: Faust: "In the beginning was the Word." Mephistopheles: "Not so. In the beginning was the Deed." Faust: "Say, rather, in the beginning was the Thought."

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A still greater hindrance to the natural benefits of society, is, the absence of candor so often prevalent in mixed assemblies, in rural "sociables" as well as in the salons of fashionable life. It seems very easy to be true to ourselves and others, when we reflect how simple are the elements of human character even amid its complexity of thought and action. Yet, who that has emerged from the adolescence of worldly knowledge can but recall the emptiness, the vanity of many a "delightful party," which, by flattering our conceits, lured us into the comfortable belief that they were really the perfection of social happiness?

I would not decry the vapid, yet, innocent chat which forms so large an ingredient of general intercourse. Nay, let croaking age be silent: may we never be old enough to forget that even the flirtations, with all their maddening train of hopes and fears, were not so very wicked, but, served to keep alive the "warm love of the heart," which in youth's exultant morning outvalues science and philosophy in its ennobling and sustaining power.

But, there creeps through our assemblies a shrinking fear of men, as though they were endowed with supernatural influence and their opinions might one day injure irreparably the good name we would preserve. This foolish timidity taints our address, distorting the face of society and leading us to conceal that which we long to disclose. "Whoever is a natural follower of truth," says Burke, "keeps his eye steady upon his guide, indifferent whither he is led, provided she be the leader." Must we be extravagantly fond of artichokes and waffles simply because our partner in the dance professes to have such a weakness for them? Inexorable Mr. Punch! Here is one of his thrusts:

Scene, a London drawing-room. "Who is that superb lady yonder? Surely, it's the duchess!" "Why, no, Mr. Snodgrass,

it's only the wife of Pipkins, the new member from Leith. Don't you know he made a large fortune in snuff and capers?" "Aw, yes, really. I thought that hideous fright couldn't be her ladyship." But, it was the duchess, after all!

If even there be retribution for polite hypocrisy. I think those who have applauded indifferent performances in music will form a numerous company of the accused; yet, better silence than the bald heartlessness. "That's a beautiful song" —as though the composer himself were on trial—followed by the ominous stillness that bespeaks the general conscience. There are situations, no doubt, where wit alone can save us from disaster. It is related of Talleyrand that, being seated one evening between two ladies, one the most accompished, the other the most beautiful woman of the day, the former put to him this terrible proposition: "Now, Mr. Talleyrand, if we were sailing upon a lake together and both of us should fall into the water, which would you save?" Instantly he named the court-beauty. "What!" said the lady of talent, "and you would allow me to drown?" "No, indeed, madam, you would know how to swim."

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I have reserved to the second part of my theme only the space which perhaps signified its due proposition in our lives and thoughts. Yet, the history of solitude, written, as it is in letters of flame, claims from mankind a solemn and attentive ear. It is the history of the most impressive struggles, the most careworn hours of toil and pain that have molded the aspirations and illumined the conquests of the human race, and from its central fires has been kindled the faith that has reared the divinest symbol of mortal regeneration. "They are never alone that are accompanied with noble thoughts," says Philip Sydney.

How, then, shall we define solitude? The very sound of the word has an echoing loneliness unlike that of any other word in our language. Is it not the retirement and meditation of the soul—the utter consecration of ourselves to Deity? Addison, in the "Spectator," says: "I believe most men have, at times, wished to be creators, possessed of the power of molding the world to their fancy; but, they would act more wisely to mold their own prepossessions and prejudices to the standard of the world." And, again: "The passive virtues only are fit to be buried in a cloister; the firm and active mind disdains to recede, and rises upon opposition." Elsewhere he writes: "In case we suppose ourselves translated into Jupiter or Saturn and there to meet a Chinese or other most-distant native of our planet, we should look upon him as a near relative and suddenly commence a friendship with him." Which reminds me of that fine passage from Cicero: "If we were to ascend into the heavens and behold all the majesty and harmony of the universe, that sight, however glorious, would, still, be uninspiring had we not some friend anear to whom we might communicate our thoughts."

Yet, gentle as are the ministrations of friendship, there are seasons when solitude itself is sweet, when all intrusion seems unkind, and the spirit of man must wander in lonely contemplation of the mysterious divinity that encompasses its throbbing life. "Solitude is the audience-chamber of God." It has been well observed that loneliness, after all, is but relative and that solitude often is less solitary than society—where solitude is calm and clear, while society only brings home to us our isolation; and the truth that our real lives are almost wholly concealed from others is beautifully portrayed in Keble's lines:

Sing, little birds, but, oh, my heart will break
With sorrow as I listen bowed in tears.
Sing on in joy for your bird-love's sweet sake—
I mourn the loss of all that earth endears.

[*To be continued.*]

Among the Books

EISENBERG: "BACTERIOLOGY"

Principles of Bacteriology. By Arthur A. Eisenberg, A. B., M.D. Illustrated. St. Louis: The C. V. Mosby Company. 1918. Price $1.75.

The little volume before us represents, with certain additions, the author's syllabus of lectures on bacteriology delivered to the nurses at several of the Cleveland hospitals. It was prepared in order to fill up the vacancies existing in various textbooks of bacteriology for nurses, and is written in as simple language as possible. The author has made a decided innovation in textbooks of bacteriology for nurses, in that he has dealt deliberately with the rationale and the principles of bacterial prophylaxis, discussing the mode of infection, disinfection, and prophylaxis and dealing with the individual microorganisms. In other ways, too, he also gives free abstracts of the theories of immunity, and which are so necessary for a proper application of bacteriological knowledge.

The little book certainly is of value, not only for nurses, but, also for physicians, especially those whose college-days antedate the general study of, and instruction in, bacteriology—there still are among us a good many of these oldtimers to whom the highly technical current textbooks on bacteriology are of comparatively little use.

OSTRUM: "MASSAGE"

Massage and the Original Swedish Movements: Their Application to Various Diseases of the Body. By Kurre W. Ostrom. Eighth edition, revised and enlarged. With 125 illustrations. Philadelphia: P. Blakiston's Son & Co. 1918. Price $1.00.

This little book contains lectures delivered before the training-schools for nurses connected with the hospital of the University of Pennsylvania, German Hospital, Women's Hospital, Philadelphia Lying-In Charity Hospital, Philadelphia Polyclinic and College for Graduates in Medicine, and the Kensington Hospital for Women, of Philadelphia. The present edition was revised by Mr. Silfverberg at the hand of notes left by the author, Mr. Ostrom, deceased. Like the preceding editions, this little book will be of service to those who are interested in massage-treatment.

SCHUELLER-STOCKING: "ROENTGEN DIAGNOSIS"

Roentgen Diagnosis of Diseases of the Head. By Dr. Arthur Schüller. Authorized Translation by Fred F. Stocking, M. D., M. R. C. St. Louis: C. V. Mosby Company. 1918. Price $4.00.

While the treatment of head diseases, more especially intracranial conditions, is surgical and should be limited to men who have acquired special surgical ability in this field, the diagnostic knowledge may and should be possessed by the general practitioner. Indeed, there are many conditions involving the general health and producing symptoms that come under the observation of the general practitioner which really originate in structural changes within the cranial cavity. The recognition of these often is not possible without roentgenologic examination, the facilities for which nowadays are considerably greater than was the case formerly. Doctor Schüller's book on Roentgen-diagnosis of diseases of the head constitutes the first comprehensive study of its kind. The translation was approved for publication by the Surgeon-General of the United States Army and may be accepted as of practical value.

LUYS: "CYSTOSCOPY AND URETHROSCOPY"

A Treatise on Cystoscopy and Urethroscopy. By Georges Luys. Translated and Edited with Additions by Abr. L. Wolbarst, M. D. Illustrated. St. Louis: C. V. Mosby Company. 1918. Price $7.50.

Until recently, the method of indirect cystoscopy has been in greater favor in America than was the direct-vision method

and it is in part because Doctor Luys' work is frankly a plea in behalf of the direct method that its translation into English was undertaken The book will be welcomed because it presents extensive and illuminating historical data, showing the origin and development of cystoscopy and urethroscopy. It contains a detailed and, as far as the Reviewer can tell, an impartial comparison of the indirect and direct methods, even though the author frankly prefers the latter. Finally, the information derived through ureteral catheterization and the practical application of cystoscopy are considered in detail. This book is well gotten up, beautifully printed and copiously illustrated. To physicians devoting much attention to genitourinary diseases, it will be a welcome addition to their library.

KOPLIK: "DISEASES OF INFANCY AND CHILDHOOD"

The Diseases of Infancy and Childhood. Designed for the use of Students and Practitioners of Medicine. By Henry Koplik, M. D. Fourth Edition. Revised and Enlarged. Illustrated with 239 Engravings and 25 Plates in Color and Monochrome. Philadelphia: Lea & Febiger. 1918. Price $6.00.

Times change. When the Reviewer was in general practice, not a great many years ago, it was customary to wash the mouth of the infants, either after each feeding in bottle-fed infants or two or three times daily in breast-fed infants. Doctor Koplik declares that there is really no scientific indication for doing this if the rubber nursing nipples and the bottles used for artificially fed infants are kept scrupulously clean; and, with the breast-fed infant, if the mother's or nurse's breast nipple, be cleansed with a solution of boric acid before and after each nursing. Before the eruption of the teeth, the natural secretions of the mouth are quite sufficient to keep the mouth clean. Indeed, it has been shown conclusively that washing the mouth of infants is productive of infectious ulcerations of the mucous membranes of the buccal cavity as well as the means by which extraneous infections are engrafted on the mucous membrane.

In looking through this latest edition of Doctor Koplik's book, we were interested in various other points, for instance, his discussion of bacterial-vaccine therapy in children; also his remarks on the administration of drugs and other methods of therapy in children. In these as well as in the discussion of diseases as they are observed and call for treatment in children, the author's disquisitions are the result of wide observation and judicious consideration. We like this volume on children's diseases and commend it to physicians.

BACON: "OTOLOGY"

A Manual of Otology. By Gorham Bacon, A. B., M. D. Assisted by Truman Laurance Saunders, A. B., M. D. Seventh Edition, Revised and Enlarged. With 204 Illustrations and 2 Plates. Philadelphia: Lea & Febiger. 1918. Price $3.00.

This is a compact and handy book of refence for the general practitioner on diseases of the ear concerning which he certainly is in need of a certain amount of information. The book is out in its seventh edition which is ample testimony of the favor with which it was received, and the good that it has accomplished.

STALL: "THE CHILDREN ON SUNDAYS"

With the Children on Sundays. Through Eye-Gate and Ear-Gate into the City of Child-Soul. By Sylvanus Stall, D. D. Philadelphia. The Vir Publishing Company. 1911. Price $2.00.

For some children, Sunday used to be (and in some instances still is) the gloomiest day in the week. There still are people who take their religion as a great burden and as being essentially a state of "don'ts." Accordingly, the children are prevented from doing everything that is pleasant on Sunday, which is supposed to be dedicated to the Lord, and they come to entertain a cordial dislike for this day which ought to be the most cheerful, sunniest, happiest and best day of the week. Instead of repressing children, it would be so much better to guide them and stimulate them and to train their thoughts along appropriate subjects. Dr. Sylvanus Stall introduces in the present volume the idea of "playing church". He describes also many occupations and games that may be indulged in suitably by the children on Sunday and without any

fear whatever of desecrating the Holy Day. Undoubtedly, the book contains numberless valuable suggestions. Those to whom Sunday is a sad day may study it, together with their children, and benefit from it.

KEYES: "UROLOGY"

Urology: Diseases of the Urinary Organs, Diseases of the Male Genital Organs, The Venereal Diseases. By Edward L. Keyes, Jr., M. D. With 204 Illustrations. New York: D. Appleton & Company. 1917. Price $6.50.

MORTON: "GENITOURINARY DISEASES AND SYPHILIS"

Genitourinary Diseases and Syphilis. By Henry H. Morton, M. D. Fourth Edition, Revised and Enlarged. With 330 Illustrations and 36 Full-Page Colored Plates. St. Louis: C. V. Mosby Company. 1918. Price $7.00.

BETHEA: "MATERIA MEDICA"

Practical Materia Medica and Prescription Writing. With illustrations. By Oscar W. Bethea, M. D., Ph. G. Second Revised Edition. Philadelphia: F. A. Davis Company. 1917. Price $4.50.

The first part of this volume contains a condensed materia medica, describing the main important galenical remedies, and, in some instances, their alkaloids. The second portion is devoted to the theory and practice of prescription writing, an art that seemingly has almost been lost. It may be well for all of us to study prescription writing and, indeed, the entire discussion presented so interestingly by Doctor Bethea.

HOPEWELL-SMITH: "HISTOLOGY OF THE MOUTH"

The Normal and Pathological Histology of the Mouth: Being the Second Edition of The Histology and Patho-Histology of the Teeth and Associated Parts. Revised and Enlarged. By Arthur Hopewell-Smith. Volume II. Pathological Histology. With 394 Illustrations in the text, including Photographs and Photomicrographs by the Author. Philadelphia: P. Blakiston's Son & Co. 1918. Price $4.50.

While the first part of his volume is of interest mainly to dentists, as it deals with the normal and pathological histology of the teeth, the second part may be studied advantageously by physicians likewise, treating as it does the pathological conditions of the gums, palate, antrum, jaws, oral mucous membrane, and so forth. One chapter is devoted to the problems of oral microbiology.

TYLER: "ROENTGENOTHERAPY"

Roentgenotherapy. By Albert Franklin Tyler, B. Sc., M. D. With 111 illustrations. St. Louis: C. V. Mosby Company. 1918. Price $2.50.

This is a brief manual designed especially for the novice and enabling him to grasp the principles of x-ray treatment readily. A description of the necessary apparatus introduces the book, being followed by chapters on superficial roentgenotherapy, on deep therapy, and on the x-ray treatment of malignant growths. A further chapter contains numerous instructive case histories which are elucidated, moreover, by many illustrations.

GRULEE: "INFANT FEEDING"

Infant Feeding. By Clifford G. Grulee, A. M., M. D. Illustrated. Third Edition, Thoroughly Revised. Philadelphia: W. B. Saunders Company. 1917. Price $3.25.

Doctor Grulee's views concerning infant feeding follow in substance those elaborated by Finkelstein and he has also adopted Finkelstein's classifications of nutritional disturbances, though with some modifications. The problem of infant feeding, of course, is an exceedingly important one, and general practitioners should, by all means, study the methods as they are developed and proved in children's hospitals and children's wards. It is for this reason that Doctor Grulee's book is a welcome guide for the general practitioner.

HILL-GERSTLEY: "INFANT FEEDING"

Clinical Lectures on Infant Feeding. Boston Methods by Lewis Webb Hill, M. D. Chicago Methods by Hesse Robert Gerstley. Philadelphia: W. B. Saunders Company. 1917. Price $2.75.

This book of clinical lectures presents a somewhat new method of postgraduate medical education, in accordance with a

plan originating with Dr. W. S. Rankin, the secretary of the North Carolina State Board of Health. The authors of the lectures presented in the book before us gave them under the auspices of the University of North Carolina and the State Board of Health in several towns throughout that state to the physicians who were thus enabled to receive welcome instruction without being compelled to leave their practices.

There is a further novel feature in this little treatise in that one author was trained in the methods used in Boston, while the other received his instruction in Chicago with postgraduate work in Europe. In consequence, the lectures differ in some points enabling the reader to compare the teachings of the two schools of infant feeding.

BERGEY: "HYGIENE"

The Principles of Hygiene. A Practical Manual for Students, Physicians, and Health-Officers. By D. H. Bergey, A. M., M. D. Sixth Edition, Thoroughly Revised. Philadelphia: W. B. Saunders Company. 1918. Price $3.50.

The sixth edition of Bergey's manual on hygiene comes out at a fortunate time, since it is important that the steady advancement of our knowledge of hygiene be recorded from time to time. It often has given the Reviewer much pleasure to be able to recommend this manual to physicians who consulted him in regard to a handy and authoritative treatise on the subject of hygiene, which yet is not too cumbersome. The new edition will be quite as much subject to recommendation as the former ones.

ANDERS: "PRACTICE OF MEDICINE"

A Text-Book of the Practice of Medicine. By James M. Anders, M. D. Thirteenth Edition—With the Assistance of John H. Musser, Jr., B. S., M. D. Illustrated. Philadelphia: W. B. Saunders Company. 1917. Price $7.50.

The latest edition of Anders' clinical text-book of the practice of medicine was prepared with the assistance of Dr. John H. Musser Jr., and is the product of a close and thorough revision of the last issue. The new material that has been added is so extensive and important that possessors of the older editions will naturally want to acquire this later book. The new material deals especially with the treatment of tetanus, acidosis in diabetes, treatment of asthma, anaphylaxis of food intoxication, focal sepsis, pyorrhea alveolaris and various other affections on which recently much work has been done. Other subjects have been rewritten, such as, prophylactic vaccination, specific therapy in typhoid fever, specific therapy in tuberculosis, pellegra as a nutritional disorder, splenic anemia, intestinal toxemia, bacteriology of whooping cough, hemolytic jaundice, and the diseases of the nervous system. So, it will be seen that just those diseases that have presented so many serious problems in the past have received special consideration with reference to the most recent discoveries and experiences.

"PRACTICAL MEDICINE SERIES"

Vol. VIII of *The Practical Medicine Series* closes the collection for 1918, and is devoted to nervous and mental diseases. Naturally, the war has given rise to various neuroses and psychoses providing a great abundance of neurologic material the literature of which during the preceding year is abstracted in the volume before us and which sells separately for $1.40.

The Practical Medicine Series is issued in eight volumes annually by the Year Book Publishers, Chicago, Illinois, at a subscription price of $10.00. The individual volumes are devoted to special subjects and may be purchased separately.

NEISWANGER: "ELECTRO-THERAPEUTICAL PRACTICE"

Electro-Therapeutical Practice. A Ready Reference Guide for Physicians in the Use of Electricity and the X-Rays. Nineteenth Edition Revised. By Chas. S. Neiswanger, M. D. Chicago: Ritchie & Company. 1918. Price $3.50.

The nineteenth edition of Doctor Neiswanger's manual on electro-therapeutical practice has been out for several months, and contains the actual requirements of electro-therapeutical methods as they have been proved of merit. When a book has reached its nineteenth edition, it hardly stands in need of commendation. It goes without saying that it is good.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Queries

QUERY 6416.—"Lues and Gonorrhea Innocently acquired." J. E. C., Missouri, has as a patient, a married woman, 27 years of age, weighing 110 pounds, 5 feet 3 inches in height, who has been treated by three or four other physicians, some of whom suggested an x-ray examination and treatment with the same. Says the Doctor:

"She was a country-raised girl, lured to city-life, and found a position, in a well-to-do private family, as general helper in the house. All went well until she made the acquaintance of a young city dude, and married him. The fellow infected her badly with gonorrhea. She went home to the parental roof in the country. In time, she gave birth to a girl babe, now four years of age, a sprightly little thing. She has been in this place now three months, working at light housekeeping for an aged man and wife. Has no hard work to do.

"So far as I have been able to learn about her family-history, that is negative. Examination disclosed an old indolent ulcer, 4 inches below her right knee-joint. This ulcer is about the size of a 25-cent silver coin, deep and of ashy color, the edges looking angry, having a veritable *noli me tangere* appearance, dark-red in color, with the tissues red 6 inches below the ulcer; her leg, from the knee to the end of the toes is somewhat edematous; there is some stiffened condition in both knees and some tenderness in these joints; she has a bad breath, the tongue is coated, brownish-looking, but, moist, looking as if having been scalded, and having a patch-like appearance.

"She menstruates every three weeks, this lasting a whole week; which keeps her weak. There is some discharge from the vagina, To the left of the urinary external meatus, I find a fiery-red excrescence, so tender that as yet I have been unable to introduce even a small vaginal speculum. This condition, she says, has been that way for several years. The vaginal discharge causes soreness of the labia. Her bowels are constipated, the urinary organs apparently are in a healthy condition.

"I am giving her an antirheumatic remedy composed of potassium iodide, colchicum-wine, Fowler's solution, macrotys, ammoniated tincture of guaiac, and salicylic acid, full doses of each, every four hours. Also protoiodide of mercury, 1 tablet (gr. 1-4) after meals, and 1-2 teaspoonful of specific medicine of echinacea every four hours—a good hepatic remedy for a general cleaning out.

"I dress the ulcer daily, cleanse it with a good surgical soap, bathe it well with hydrogen peroxide solution, keep the parts damp with a 50-percent solution of echinacea. What better can be done? I have her on a proper diet, including plenty of fruits, oatmeal, et cetera. Can you tell me what to do other than what I am doing? I also have ordered vaginal douches with a strong solution of potassium permanganate, night and morning."

There is little doubt in the present writer's mind, doctor, that your patient is luetic, that is to say, she has contracted, not alone gonorrhea, but, also, syphilis. It is, of course, a question as to whether the one young married city-man is responsible for both of these infections, especially since she seems to have given birth to a child that did not suffer from ophthalmia and now, at four years of age, is, as you describe her, "a sprightly little thing."

It might be well to investigate this patient's past history a little more thoroughly and, by all means, before attempting further treatment, have a Wassermann test

made. Should it prove positive, as we are morally certain it will, active specific treatment should be instituted without delay.

You say that "to the left of the meatus I find a fiery-red excrescence, so tender that I have been, as yet, unable to introduce a small vaginal speculum." If this excrescence is situated just at the orifice of the meatus, you have to do with a caruncle, and it should be promptly excised and the urethra dilated.

The exact source of the vaginal discharge should, of course, be ascertained. It is absolutely necessary to discover whether the uterus and adnexæ are involved. Specimens of discharge, both from the vagina and cervical canal, should be submitted to a competent pathologist, for examination.

We should be inclined to treat the ulcer with chlorazene or dichloramine-T. Temporarily, you might cleanse the sore thoroughly, once or twice daily, with a 1-percent solution of chlorazene and then apply a bit of chlorazene cream.

If the young woman has syphilis, she should receive, intravenously, sodium cacodylate or neosalvarsan, and, in alternation, mercury in any acceptable form.

Should the Wassermann test prove negative (which we consider unlikely), and the Neisser bacillus alone be found present, an autogenous or a gonococcus-combined-bacterin, should be administered.

This is one of the cases that require a somewhat prolonged and careful treatment, especially since the infection is of such long standing.

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QUERY 6417.—"Arthritis and Endocarditis:" J. S. H., Tennessee, writes: "I have a boy patient, twelve years of age, in whose case I desire your help. Two months ago general dropsy developed in the little fellow, being very much swollen all over his body. This lasted for about four weeks and disappeared under appropriate treatment; however, it recurred in two weeks in a milder form. The treatment for dropsy was again given and the swelling left. The heart is the cause, so I think. He has a missing beat and an enlarged precordial area, the apex is misplaced to the right near the sternum. The patient is weak, I can not get him to use himself any, he won't stand on his feet. His blood is below par. His elbows are slighty swollen and sore and he can not bend them without pain. It may be rheumatic, but, there is no history of rheumatism previous to this attack.

"The boy has a morbid appetite, but, has been restricted to a dry diet. His urine is normal, or, it was two weeks ago. The most marked symptom is that he has no strength and does not try to use himself—can not or will not exert himself. In some respects, his heart is better, that is, not quite so stormy. He has taken Basham's mixture with cactus, anedemin tablets, fluid extract of apocynum; also, at first, digitalis and iron. But, now he needs, if possible, to be built up or to gain strength. He is thin now, has no weight, and, as a matter fact, needs heart-medicine."

From the symptoms that you describe about this patient, we strongly suspect arthritis ("inflammatory rheumatism"), which now seems to be localized in the elbow. If we are correct in this assumption, the trouble with the heart would at once be explained as an acute endocarditis.

In such a case, there would be ample reason for the weakness of the patient and for the fact that he will not exert himself. Probably the little chap is too weak and feeble for exertion. In any inflammation of the heart, whether it be the endocardium, myocardium or pericardium, bed-rest is an important factor. It is only after the acute inflammation has subsided and the heart action is again approaching a normal quality, that very carefully regulated exercise may be undertaken.

Gentle hydropathic measures probably will be beneficial, especially in quieting the irritated heart action. Sponging of the body with magnesium-sulphate solution undoubtedly will be of benefit. Compresses with the same solution may be placed over the heart for one-half to one hour at a time when the action is stormy.

For the painful elbows, external applications, containing menthol, guaiacol, methyl salicylate, or similar remedies, will give relief.

The food should be regulated so as to involve the least strain upon the kidneys, while elimination is maintained through the intestines. The present writer does not believe that a moderate amount of meat and other protein foods will be injurious, but, always with the proviso of maintaining ample elimination.

As to drug-treatment, digitalis undoubtedly seems to be indicated. Also, it may be

necessary to secure positive sedation with hyoscyamine or even with small occasional doses of hyoscine and morphine. A ferruginous tonic, such as the combined arsenates with nuclein, perhaps alternating with nucleinated phosphates, undoubtedly will do good.

Gentle massage should be given daily until such a time as the patient may be able to be up and move about on his own account.

It would be well to watch and record the total 24-hour quantity of urine voided by this patient and to maintain the elimination of a suitable amount by means of heart-remedies, such as they are represented in the proprietary anedemin. We have no hesitation in saying that we consider the anedemin formula as very excellent and believe it can be used with confidence.

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QUERY 6418. — "Dermatitis Herpetiformis." J. A. M., South Carolina, has a little patient who is suffering from a peculiar form of eruption that is giving the Doctor considerable concern. He describes it as follows:

"The little girl, two years old, of blond type, had had this eruption for quite a long time before I located here and had been unsuccessfully treated by several other physicians. It starts with a vesicle not unlike ordinary itch; it is not confined to any portion of the body; now involving principally the back, buttocks and lower legs. In a few days, the vesicles contain pus, which escapes, owing to the child's scratching. The sores scab over and heal under the scab; however, other vesicles quickly form. After healing, there is left a reddened base, the redness disappearing upon pressure, but, returning when the pressure is removed. Yesterday, one of her legs began to take on an erysipelatous look, the inflammation extending up to the knee.

This, possibly, may be the vesicular form of eczema; still, we are inclined to believe that you are dealing with a form of dermatitis herpetiformis. In children, the element of multiformity often is wholly lacking, the eruption being of a vesicular character, without admixture of other types.

The limbs, especially the legs, commonly are involved, although the greater part of the trunk may show typical lesions. As a rule, the vesicles are somewhat odd as to shape, being of a peculiarly striking irregular outline. In size, they rarely are smaller than a pinhead and may be the size of a small pea. The scattered pustules may be large. Itching is a constant and most troublesome feature. One group of vesicles may follow another for weeks or, even, months. In all these cases, indican is present in the urine, and mostly there is eosinophilia.

Whether you have to do with a case of typical eczema or of dermatitis herpetiformis, the condition of the body-chemistry must be ascertained. Therefore, we would advise that you secure a specimen of the child's urine (4 ounces from the mixed 24-hour output, stating the total amount voided), for examination. Also, please, tell us just how long the condition has existed, the exact character of the initial lesion, and whether there is any staining or discoloration.

You probably will find creolinated zinc-oxide ointment an excellent application. It should be applied after the parts have been thoroughly sponged with boric-acid solution. The proportions that the present writer has found most satisfactory are: zinc oxide, 20 percent; creolin, 2.75 percent; ceresin, 10 percent; petrolatum, enough to 100 parts.

Internally, the patient may be given very minute doses of arsenous sulphide, three times daily; also, nuclein should be administered in rather full doses.

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QUERY 6419. — "Arthritis Deformans." F. H. Missouri, and C. B., Michigan, both inquire as to what can be done for the relief of patients suffering from arthritis deformans.

We regret that, offhand, we would say: mighty little. If you are able to determine the actual bacterial etiology in a particular case, the trouble *may* be arrested. Usually it constitutes a streptococcic infection, in some cases, the bacillus of tuberculosis stands in relation, and a physician in Texas has reported to us several cases of this distressing malady that he succeeded in arresting, in fact, he was able to bring about a clinical cure by means of specific antituberculosis treatment.

In any given case, it might be well to determine the bacteria responsible by means of diagnostic injections of vaccine. As you know, an infection with certain bacteria sensitizes the organism to the parenteral introduction of related vaccines, so

that this will be followed by systemic and local, and focal reactions.

Supposing a vaccine is administered in small dose, in a case of arthritis deformans, which contains the bacteria that are responsible for this particular case of disease. The injection will be followed, after twelve or twenty-four hours, by pain in the affected joints, by general malaise, fever, possibly swelling, the whole symptom complex sometimes being ushered in by a chill and lasting for from one to three or four days. In such a case, the reaction would be followed by improvement all along the line and, after a suitable period of time, the dose might be repeated, either in the same amount or slightly increased, and this might be kept up at intervals until the patient no longer reacts.

Such a procedure, if the correct vaccine is used, in most cases will bring about an arrestment of the trouble.

There is a further point to be taken into consideration in determining the etiology of arthritis deformans, and that is, that, very often, it originates in some focal infection, that may be localized in the tonsils, at the roots of the teeth (pyorrhea), in the gallbladder, in the rectum, and elsewhere. It is, therefore, of great importance to examine a patient with arthritis deformans very carefully and to eliminate all possible points of focal infection from which the offending bacteria might be carried to the joints by way of the circulation.

First of all, the tonsils should be searched for crypts and pus-pockets. The teeth should be x-rayed and receive attention if pus-pockets are found; the rectum should be inspected carefully and searched for pockets, sinuses or any spots in which pus collections are present. Finally, the gallbladder should receive attention. If an open focus can be detected and the pus be obtained, this would, in all probability, give the basis for an autogenous bacterin that would promise results better than anything that could be prepared in the way of stock vaccines.

As for general treatment, the old idea of "clean out, clean up and keep clean" holds good. Then, systemic and antitoxic remedies, like calcium sulphide and echinacea, might be given in full doses, at the same time securing thorough elimination. It goes without saying that the history of the patient should be investigated with care because the disease may follow, for instance, an attack of gonorrhea, an attack of typhoid fever, of scarlet fever, of tuberculosis, and of other infectious diseases.

For the relief of pain, you may have to resort to salicylates, such as acetylsalicylic acid (aspirin), which, however, always should be guarded with monobromated camphor. Phenacetin sometimes is of service while, in extremely painful attacks, hyoscine with morphine may have to be employed. Naturally, it is necessary to be extremely careful in the use of morphine except in an otherwise hopeless condition where the possible development of an addiction would be less serious than is the severe pain.

External applications to the affected joints are not of very great value, as a rule. Sometimes, a combination like guaiacol, grs. 40; methyl salicylate, grs. 40; menthol, grs. 3; lanum and petrolatum to make oz. 1, proves very effective. When there is an acute exacerbation, with evidences of inflammation, you will find an antiphlogistic paste like pneumophthysine of service. Often, dry heat, by means of flannel cloths kept warm by hot-water bottles, will ease pain as well as anything else. In other cases, the hot-air cabinet, electric-light cabinet, and similar appliances are useful.

So you see, Doctor, that the problem confronting you is, by no means, an easy one, but, if you can succeed in clearing up all doubtful points in the etiology of your patient, you will, thereby, be put in a position to bring about at least a considerable improvement and, probably, an arrestment of the process.

We do not suggest many medicines in this reply, Doctor. Drug treatment does not go very far, yet, certain reports on the utilization of socalled nonspecific-protein reactions indicate the possibility of relieving even so severe a disease as arthritis deformans. As a matter of fact, though, these nonspecific-protein reactions are in reality specific. They are brought about by means of vaccines and this question has received attention in the body of the letter. The physical methods of treatment sometimes offer great possibilities, especially light-treatment (ultra-violet rays), also high-frequency and vibration. As to these, however, you had better consult some of the textbooks on the subject.